NOVEMBER
1953



# Amateur Radio

JOURNAL OF THE WIRELESS INSTITUTE OF AUSTRALIA

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# AMATEUR RADIO

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## EDITORIAL

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Other readers who purchase the magazine because of their interest in the activities of Amateur Radio as a hobby, also find much of technical and general interest in its pages.

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HELP US TO HELP YOU!

## THE CONTENTS . . .

# The Multi-Band Antenna Coupler

## Six Bands Without Coil Changing

THE antenna coupler described in this article was designed chiefly to simplify bandchanging when using a bandswitching transmitter. No plug-in or switched coils are used, and only a single split-stator tuning condenser is required to cover all bands from 3.5 to 28 Mc. Moreover, this design features simple construction with relatively few parts which are to be found in most junk boxes.

**● In this article, reprinted from "QST," August, 1953, W2JJI neatly solves the problem of the bulky inconvenience of the usual antenna tuner. Working on the principle of the multiband tuner, all bands from 80 to 10 can be covered with two coils and no switching. The simplicity and compactness should appeal to the low-power and high-power man alike.**

### THE CIRCUIT

The circuit of the coupler as used at W2JJI, and the method of connecting it to the transmitter and receiver are shown in Fig. 1. When 3.5 or 7 Mc. energy is fed from the transmitter to link L3, the circuit will act as if it were connected as in Fig. 2A because the two halves of the small coil, L2, will have little reactance at these low frequencies, and may therefore be thought of as long connecting leads between the grounded end of the large coil, L1, and the condenser stators.

Fig. 2A shows that we have a simple parallel-tuned circuit under these conditions, with the two sections of the condenser in parallel across coil L1. This circuit may be resonated at either 3.5 or 7 Mc. if the total maximum-to-minimum capacitance ratio of the condenser is at least 4 to 1, and if the inductance of the coil L1 is such as to resonate at 7 Mc. with the total minimum capacitance.

When 14, 21, 27 or 28 Mc. energy is fed from the transmitter to link L4, the circuit will act as if it were connected as in Fig. 2B, because both the centre of coil L2 and the rotor of the condenser are at ground r.f. potential, and may therefore be connected together by coil L1 with no change in the electrical properties of the circuit. Fig. 2B shows that we also have a simple parallel-tuned circuit under these conditions, but with the two sections of the condenser in series across coil L2. This circuit may be resonated at any frequency between 14 and 28 Mc. if the inductance of coil L2 is such as to resonate at 28 Mc. with the minimum capacitance which, in this circuit, is half the capacitance of one section of the condenser. The maximum-to-minimum capacitance ratio in this circuit will still be the same as when the two sections of the condenser were in parallel, which again permits a 2-to-1 frequency coverage.

With the condenser nearly open, the coupler will tune to either 7 or 28 Mc. With the condenser nearly closed, it will tune to either 3.5 or 14 Mc.

Because of the arrangement of the coils L1 and L2 in this circuit, only one of them at a time can be hot. This enables us to connect two antennae at the same time to the coupler, one on each coil. The one on the coil that happens to be cold will not affect the circuit while the one on the hot coil is taking power from the transmitter. If the antennae are designed so that one may be used on both 3.5 and 7 Mc., and the other on all higher-frequency bands, no switching of antennae will ever be required. If you use more than one low frequency or more than one high frequency antenna, provision must be made for changing their connections to the coupler when changing bands. But one high frequency and one low frequency antenna may be left connected to the coupler at the same time. If several antennae are to be used, the various feed lines should be equipped with links or clips to make it possible to change antennae quickly.

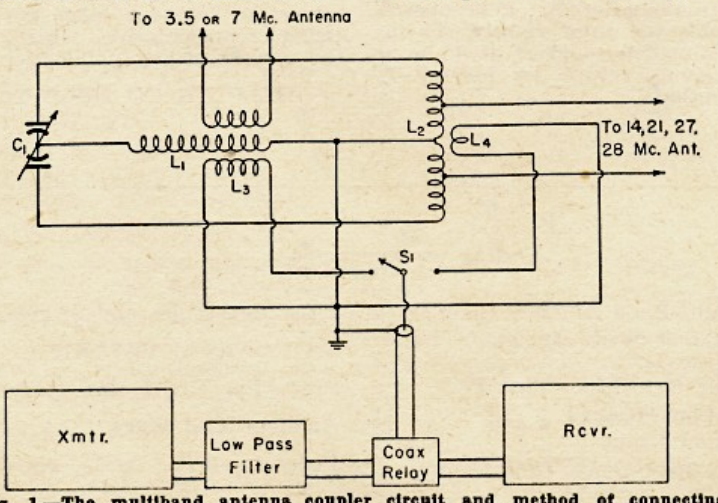


**Fig. 1.—The multiband antenna coupler circuit and method of connecting to transmitter and receiver. Components and values are discussed in the text.**

Tests have shown that the simultaneous connection of the two antennae does not result in any noticeable increase in harmonic output. The coils in the tuner have been so proportioned that when operating on the lower frequency bands, the circuit is detuned considerably from resonance with harmonics falling in the higher frequency bands.

Fig. 2B shows that the circuit is a balanced arrangement for the higher frequencies. Therefore, it is suitable for use with almost any type of feed system, and is conveniently adaptable to use with a centre-fed multiband antenna designed for 14, 21 and 28 Mc. However, as Fig. 2A indicates, the circuit is unbalanced for the two lower frequency bands. Individual dipoles for 3.5 and 7 Mc. with matched low impedance lines can be coupled inductively, as shown. A single antenna consisting of a half wavelength of wire for 3.5 Mc. (or multiples of a half wavelength for 3.5 Mc.) can be used for both 3.5 and 7 Mc. operation by connecting it to the rotor of the tuning condenser. In this case, it is a simple voltage-fed wire.

### ANTENNA TUNER TABLE

| Antenna | Feed Line Coupling | Coupler Link | Freq. | Cond. Dial |
|---|---|---|---|---|
| **10 Metre** | | | | |
| 3 element beam, 72 ohm co-ax feed line | 1 turn link ⅞ meshed at centre of L2 | Maximum possible coupling to L2 | 28.0<br>28.5<br>29.0<br>29.2 | 7<br>6<br>6<br>6 |
| **20 Metre** | | | | |
| ½-wave folded dipole, 300 ohm feed line | Clipped to L2 ½ turn each side of centre tap | ¾ of maximum possible coupling | 14.0<br>14.1<br>14.2<br>14.25<br>14.3<br>14.35 | 63<br>62<br>60.5<br>60<br>59.5<br>59 |
| **40 Metre** | | | | |
| ½-wave folded dipole, 300 ohm feed line | Clipped across 3 turns at cold end of L1 | Maximum possible coupling to L1 | 7.0<br>7.1<br>7.2<br>7.3 | 14<br>13<br>12.5<br>12 |
| **75-80 Metre** | | | | |
| ½-wave at 3.9 Mc. directly end fed | One end clipped on hot end of L1 | Maximum possible coupling to L1 | 3.5<br>3.6<br>3.7<br>3.8<br>3.9<br>4.0 | 86<br>80<br>74.5<br>69.5<br>65<br>60.5 |

By removing the ground connection at the junction of L1 and L2, and moving the L3 link coil to the centre of L1, the circuit will be balanced for both high and low frequencies. However, the centre of L2 will then be hot at low frequencies and it will be necessary to provide good insulation between L2 and L4. Also, it will probably be inadvisable to leave feeders connected to L2 while operating at 3.5 Mc. or 7 Mc. from the consideration of simultaneous radiation from both antennae, possibly with an increase in harmonic output.

Fig. 3 shows a 300-ohm flat line from a 20 metre folded dipole clipped across a turn at the centre of the high frequency coil, L2.

The location of the co-ax antenna relay between the coupler and the receiver, when in the receive position, puts the coupler between the antenna and

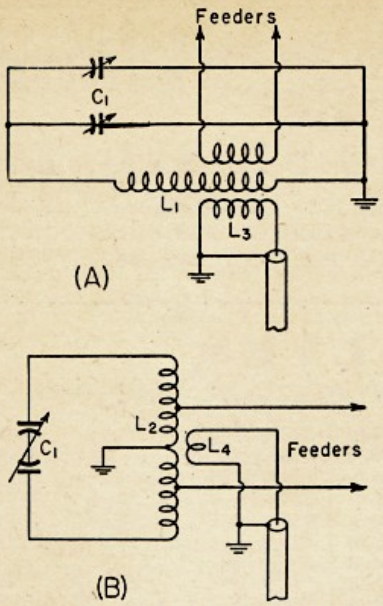


**Fig. 2.—A: Equivalent circuit of the coupler when low frequencies are fed to L3. B: Equivalent circuit when high frequencies are fed to L4.**

the receiver. The received signal is built up by the resonant circuit of the coupler, so the greatest response to incoming signals is automatically secured at and near the frequency to which the transmitter is tuned. Practically no signal will be received, however, when the receiver is tuned to some other band than that to which the coupler is tuned. This is in some respects an advantage, and in others a disadvantage. One advantage is the reduction in the amount of noise that reaches the first stage of the receiver.

## THE CONDENSER

Since it is believed that most Hams prefer to use materials on hand, or easily obtainable, in constructing a device of this type, only a general description of the construction and critical values will be given. The model shown was made entirely from parts obtained from the junk box.

The condenser should be selected first. It must be a dual section job, and must have a maximum-to-minimum capacitance ratio, somewhat greater than 4-to-1. A 5-to-1, or greater, ratio is desirable. A condenser having a maximum capacitance of 140 or 150 pF. per section will be suitable if its minimum capacitance is not over 30 pF. The one used is a Cardwell with a maximum capacitance of about 240 pF. and a minimum capacitance of about 30 pF. per section. It is larger than necessary, but happened to be available.

The original insulators, having been broken, were replaced with lucite strips and steatite bushings. The bushings were found necessary when the lucite bubbled up internally at critical points under the influence of the r.f. The voltage rating of the condenser depends upon the power output of the transmitter. A plate spacing of 0.047 inch will stand about 1500 volts and is sufficient for an r.f. power of 500 watts.

The mechanical construction of the condenser selected will determine how the coils and s.p.d.t. switch are to be mounted. The coils, L1 and L2, are permanently soldered to the condenser terminals since they are never changed. In the model shown, a soldering lug is bolted to the centre of each lucite strip to act as a tie point for the centre tap of L2 on one side, and a tie point for the grounded end of L1 on the other side. These two points are then joined with a heavy wire running across the top of the condenser. The outer braid of the RG-8/U from the co-ax relay is soldered to this same point. The other ends of the link coils are soldered to the switch contacts. The centre conductor of the co-ax is soldered to the movable arm of the switch. The switch is mounted on stand-off insulators and home-made metal brackets supported by the condenser frame itself.

Since the frame of the condenser in Fig. 1 is hot when on 3.5 or 7 Mc., the condenser must be insulated from the chassis. Any suitable stand-off insulators may be used for this purpose. In the model shown, steatite bushings were used to insulate metal stand offs. In any case, be sure to provide sufficient spacing to prevent flashovers to the chassis. The tuning dial must also be insulated from the condenser drive shaft. A ceramic coupler or section of insulated shaft may be used for this purpose.

## COILS

The sizes of the coils are fairly critical. As pointed out before, the inductances of L1 and L2 will depend upon the minimum capacitance of the condenser used. L2 is made of ⅛" copper tubing (No. 10 wire would do). This coil is 2" in diameter and about 1½" long. If the minimum capacitance of the condenser is about 30 pF. per section, 6 turns will be required for L2. If less than 30 pF., 7 or 8 turns may be needed to enable the circuit to tune from the high end of the 28 Mc. band to the low end of the 14 Mc. band. The low frequency limit will depend upon the maximum capacitance of the condenser. If this is somewhat more than four times the minimum capacitance, no trouble should be encountered with a 6-turn coil for L2. A grid dip oscillator will quickly show if L2 has the proper inductance. This coil should be adjusted before L1 is attached.

Coil L1 should be made of No. 12 wire or heavier, 2" in diameter and about 2½" long. This coil will require 12 to 14 turns. The grid dip oscillator again may be used to check the frequency range by coupling it to coil L1, coil L2 being left in the circuit. It should be possible to tune from the high end of the 7 Mc. band to the low end of the 3.5 Mc. band if L1 has the proper inductance.

If 50 ohm co-ax is used to connect the transmitter to the coupler, the link coils, L3 and L4, should have a reactance close to this same value. Five turns will therefore be required for L3, and 1 turn for L4. These coils are coupled as shown. All coils are air-wound and supported only by their leads. The 1 turn link is made of No. 12 well insulated wire, as it is held in place by friction between the centre turns of L2. The 5 turn link is made of No. 12 enamel covered wire. Both link coils are 2" in diameter.

## ADJUSTMENT

The adjustment of this coupler is fundamentally the same as for any of the more conventional types. The general idea is to get maximum transfer of power from the transmitter to the antenna. To do this requires a low standing wave ratio on the link line between the transmitter and the antenna coupler. This is accomplished by making the various antenna feed lines that are to be connected to the coupler all look like 50 ohms to the transmitter. Detailed data on one procedure for matching to flat lines may be found in February, 1950, "QST"[1]. This method requires the use of an s.w.r. bridge in the link line. With the model described in this article, an antennascope[2] was used to make the necessary adjustments. To use this instrument, disconnect the link line from the co-ax relay, or from the receiver, whichever is more convenient, and connect this end of the line to the output terminals of the antennascope. Couple the input terminals to a grid dip oscillator or other low power variable frequency r.f. generator. Set the antennascope dial at 50 ohms and the r.f. generator to the frequency of one of the antennae to be checked. Adjust the coupling or output power of the r.f. source for approximately full-scale deflection of the antennascope meter.

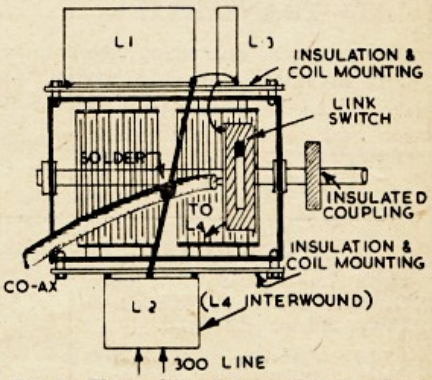


**Fig. 3.—The multiband antenna tuner, showing the method of mounting the coils and link switch.**

Connect the feed line of the antenna to the proper coil of the coupler, using some trial degree of coupling. Switch in the proper link on the coupler. Now tune the condenser of the coupler for the greatest dip on the antennascope meter. If the meter does not go to zero, increase or decrease the amount of coupling to the antenna, re-adjusting the tuning condenser with each change to obtain the greatest dip. When the antenna coupling that results in the lowest meter reading is found, leave this and increase or decrease the coupling of the link coil of the coupler to make a still greater dip if possible. This adjustment should bring about a complete null if the input impedance of the antenna feed line is nonreactive. If a complete null cannot be found, the antenna or its feed line need adjustment. The antennascope may be used for this purpose also.

The above procedure should be repeated for each antenna to be used with the coupler, and a record kept of (1) the tap or link position of the feed line; (2) the coupler-link position; (3) the condenser-dial settings for various fre-

(Continued on Page 9)

1 Grammer, "Eliminating TVI with Low-Pass Filters," "QST," February, 1950.
2 Scherer, "Building and Using the Antennascope," "CQ," September, 1950.

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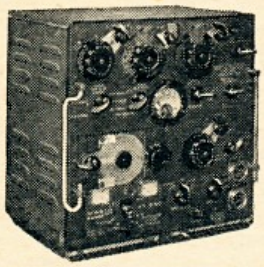


### AT5 TRANSMITTER

A high power unit using two 807s in final. Covering 140 Kc. to 20 Mc. with provision for six crystals and V.F.O.

**£9/17/6**

### AR8 RECEIVER

11 valve twin channel Receiver, using standard 6.3v. octal valves. Six bands. Complete coverage 140 Kc. to 20 Mc. Dial calibrated for all bands.

**£23/17/6**

### GENEMOTORS

Type 72—Input: 27v. 3.6a., Output: 250v. 70 Ma., and 12.6v. 2.6 a., **£1/19/6.**

Type DA-3A—Input: 28v. 10.5a., Output: 300v. 260 Ma., 150v. 10 Ma., 14.5v. 5a., **£1/9/6.**

Type 31—Input: 18v. 12a., Output: 7.2v. 13a., 225v. 110 Ma., **£1/19/6.**

### TRANSMITTING TUNING UNITS by G.E.

Type TU10B
10000 to 12500 Kc., **£2/10/-**
Type TU7B
4500 to 6200 Kc., **£2/10/-**
Type TU6B
3000 to 4500 Kc., **£3/10/-**
Type TU9B
7700 to 10000 Kc., **£2/10/-**

### TRANSMITTING CONDENSERS

**Neutralising Condensers—**
Single 33 pF. .... .. .... **17/6**
Dual 15 pF. .. .... .... .... **35/-**

**Dual Transmitting—**
JC1560 80 pF. .... **£2/10/-**
JC1569 200 pF. .... **£3/10/-**

**Midget Transmitting—**
Single type 35 pF. .. .... **25/-**
Dual type, 15 pF. .. .... **30/-**

### TRANSMITTER-RECEIVER Type RT-34/APS-13

Frequency Modulated, approx. 450 Mc. Valve line-up:
9—6AG5
5—6J6
2—2D21
1—VR105
Also contains Dynamotor, input 27v. 1.5 amp., output 285v. 60 Ma. Price **£17/10/-**

## VALVES

### BRAND NEW IN ORIGINAL CARTONS

| | | | |
|---|---|---|---|
| 1H6 | 7/6 | 830B | 60/- |
| 1K7 | 10/6 | 813 | 60/- |
| 2A3 | 15/- | VR150/30 | 22/6 |
| 6AC7 | 15/- | 954 | 7/11 |
| 6B8 | 15/- | 955 | 7/11 |
| 6F6 | 12/6 | 12A6 | 12/6 |
| 2051 | 22/6 | | |
| 6K6G | 12/6 | | |
| 6K8 | 12/6 | | |
| 6L7 | 12/6 | | |
| 807 | 25/- | | |

2050, 22/6. This valve is suitable for use with Photo Cell Relay Unit, as per June, 1953, issue of "Radio and Hobbies."

## COMMAND

### RECEIVERS

Type BC453, 190 to 550 Kc., **£12/10/-.**
BC454, 3 to 6 Mc., **£7/10/-.**
BC455, 6 to 9.1 Mc., **£7/10/-.**

### TRANSMITTERS

Type BC457, 4 to 5.3 Mc., **£7/10/-.**
BC458, 5.3 to 7 Mc., **£7/10/-.**
BC459, 7 to 9.1 Mc., **£7/10/-.**

### COMMAND RECEIVER CONTROLS, Type BC450

3—Slow Motion Dials.
6—Single Pole Double Throw Switches.
4—Miniature Jacks.
3—Volume Controls, approx. 500 ohms.

**Price, £1/15/-**
Post. & Pack.: 6/-, Interstate 8/6.

### COMMAND MODULATOR UNIT, Type BC456E

In new condition, contains:
1—12J5
1—1625
1—VR150/30
3—24v. Relays
**Price, £3/10/-**

### TRANSMITTERS Type TR3548

Containing Valves: 1 Rectifier VU111, 1 EF50, 1 10 Cm. Magnetron Valve complete with magnet, 1 Crystal Diode Type 1N21; and 1 24 volt Blower Motor. Brand new. Price **£5/19/6.**

### MODULATING UNIT

**Type 169**, containing Klystron Tube, three Neon Stabilisers, one EF50, two half-wave Selenium Rectifiers, one 5U4 Rectifier, one CV85, Potentiometers gears, Resistors, high voltage Condensers and Transformer. Price **£4/19/6.**

### BENDIX RADIO AZIMUTH CIRCLE LOOP AERIAL CONTROLS, Type MN22A

Price **35/-.**
Post. & Pack.: 4/9, Interstate 6/-.

### RADIO TRANSCEIVER AND INDICATOR UNIT

**V.H.F. Approximately 180 Mc.**

Type 1045. Valve line-up in Transceiver: 2—RL18, 1—VR135, 1—5V4, 1—EA50, 1—RL37, 6—EF50, 1—6SN7, 1—GL2050 (Thyrotron, 2—VR150/30 (Voltage Regulators), 1—884 (Gas Triode). This unit also contains a motor driven Selector Switch, two superbly designed Polystyrene six-position rotary Coil Turrets, and an I.F. Transformer strip ideally suitable for use with Television. Band width 10 Mc.

Indicator Unit, Type 1047, Valve line-up: 7—EF50, 1—879, 1—VR54. Also contains a 3,000 type Relay 2,000 ohms, ten assorted Potentiometers, a two-bank Ceramic Wafer Switch, and an illuminated scale (5BP1 tube and shield not included).

These two Units are brand new, and are packed together in their original packing cases.

PRICE **£21/10/-** the two.

Transceiver .... .... .... .... £15/-/- } if supplied separately.
Indicator Unit .... .... .... £7/10/- }

# A Standing Wave Indicator for 2/- (inc. tax)

BY C. J. COOKE,* VK4CC

As the above title infers, the device to be described is nothing out of the box, well practically nothing anyhow. Those of you who can afford a nicely calibrated s.w.r. indicator will not be interested in this unless it's to prove that you may have wasted your money and time or alternatively to brand me "a new chum" a little out of alignment.

The accompanying diagram should show you how I went about the business of matching a 300 ohm line to a closed stub on a W8JK beam. The principle could, of course, be applied in other antenna-feeder matching problems. If you can't make the feeder match the antenna you either (a) change the beam, like I did, (b) increase the height to 65 feet, as 4VJ did, (c) throw the feeder away and buy a new one, like 4XG did, (d) put up with the mismatch, as most of us do, anyhow.

Briefly, the method makes use of the fact that a short-circuited transmission line has a high current value near the "short" and low value at a point a quarter wave from that short, towards the transmitter. Likewise, if the line is left "open" at the ends, the current is low at the end and high a quarter wave from that point towards the transmitter. If the line is correctly terminated, the current distribution will be substantially the same along the entire length of feeder. Therefore, if the terminating impedance is higher than that of the line, the current distribution will be the same, in effect, as an open-circuited line; and if lower it will be the same as a short-circuited line. If the impedance is the same as the line everything, like baby bear's porridge, will be "just right." The idea should be applicable to co-ax cable by shunting smaller sections of it with pea lamps—smaller because the current will be greater in low impedance lines and of course you do not want to burn out those bulbs first go, do you?

In any case, the method of adjusting to a stub is so easy that a child could do it, simply slide the feeder connection up or down until both globes are the same degree of brilliancy. Terminated folded dipoles and "T" matches should be equally as easy to adjust. Remember, it is easier to compare two "dull" globes than it is to compare "bright" ones, so either decrease power or decrease the length of feeder being shunted.

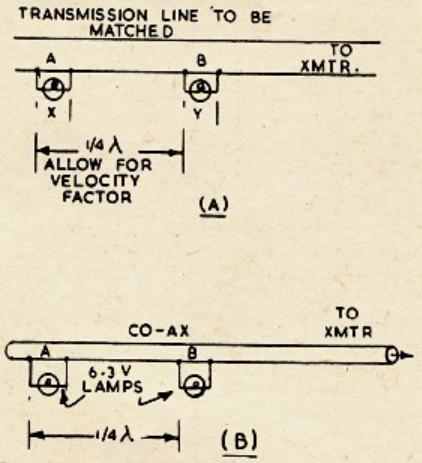
If both globes retain the same brightness no matter what you do to upset the match, you probably have the globes connected at points one-eighth and three-eighths wave from the end of the line, in which case, as my friend 4FT was bright enough to point out, both globes would act like that. However you can easily check this before you start by trying the device out before you connect to your antenna by shorting and opening the end of the feeder with power into the line from the transmitter and observe if the globes behave as expected.

* 79 Kuran Street, Chermside, Brisbane, Qld.

The idea of running up and down the feeders with a current indicator to check the s.w.r. is "out" as far as I am concerned, after reading of the experiences of a W who finally found that his 7/22 feeders eventually looked like spider webs. He also found it inconvenient to keep lengthening the stick upon which was placed the indicator as he also finished up with a slit-trench directly below the feeders.

Of course the method described is not new, but it hasn't had the publicity it deserves. If you like to have your antenna looking like a xmas tree you may leave the globes in place permanently—and, by the way, it is easier to do your adjusting at night as you would expect. If you must do it during the day, it may be an idea to colour the glass of the globes red or green.

In conclusion, make sure the end globe is as close to the end of the feeder as possible and the other quarter wave (allowing for velocity factor) from it, and make sure that the sections of line shunted by each globe is the same as far as you can accurately measure. The lengths of these similarly-shunted sections should be changed from the one foot shown if power other than 50 watts or if a different type of feeder is being used.




In (A): X and Y are each 12 inches on 20 metres (for 50 watts). Lamp A to be as close to end of transmission line as possible (avoid one-eighth wave or close thereto, otherwise inaccurate).

1. If both Lamps are of equal brilliance, the transmission line is matched correctly.
2. If Lamp A is brighter than Lamp B the transmission line is terminated in an impedance **lower** than its own natural surge impedance.
3. If Lamp B is brighter than Lamp A the transmission line is terminated in an impedance **higher** than its own natural surge impedance.

**AMATEUR BANDS AVAILABLE**

| | | | |
|---|---|---|---|
| *1.84— | 1.86 Mc. | †288— | 296 M.c |
| 3.5 — | 3.8 „ | †576— | 585 „ |
| 7 — | 7.15 „ | 1,215— | 1,300 „ |
| 14 — | 14.35 „ | 2.300— | 2,450 „ |
| 21 — | 21.45 „ | 5,650— | 5,850 „ |
| 26.96— | 27.23 „ | 10,000— | 10,500 „ |
| 28 — | 30 „ | †21,000— | 22,000 „ |
| 50 — | 54 „ | †30,000 Mc. and | |
| 144 — | 148 „ | Above. | |

* Available for emergency network purposes only. Normal Amateur activities are not permitted in this band.
† Temporary allocations.

# AMATEUR TELEVISION

**PART FOUR**

**BY E. CORNELIUS,* VK6EC**

### THE VIDEO MIXER

The purpose of the video mixer is to mix together, at the correct levels, the pix signal from the pre-amplifier, and the combined sync. and blanking signals, from the synchronising signal generator.

Its output is a composite video signal of about 4 volts peak/peak suitable for feeding video receivers, or a transmitter modulator. See circuit in Fig. 16.

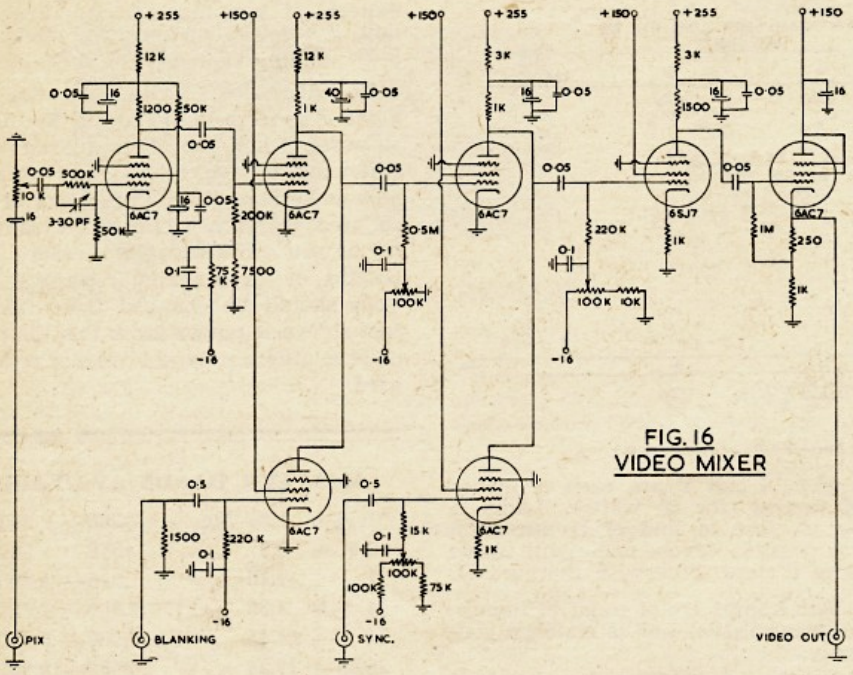



FIG. 16
VIDEO MIXER

The overall gain of the unit, with transparencies, is about five, with a maximum gain of about 500. Five stages are used:—

1. A high peaking amplifier (6AC7);
2. A blanking mixer (two 6AC7s);
3. A pedestal clipper, sync. mixer (two 6AC7s);
4. A phase inverter (6SJ7);
5. A cathode follower (6AC7) to feed a low impedance line.

(1) The high-peaking amplifier has a network in its grid circuit which has a loss of 20 db at low frequencies. See Fig. 17.

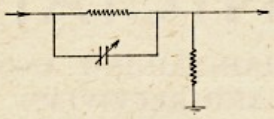


FIG. 17 — HIGH PEAKER

Above about 100 Kc. the attenuation of the network becomes progressively less, resulting in a considerable peaking of the high frequencies, due to the 3-30 pF. capacitor in shunt with the series resistor. This circuit corrects for the phosphor persistence, and while the results from using it are quite good, some further experimentation with the constants is planned.

* C/o. Station 6WA, Wagin, Western Australia.

The anode load of the tube is only 1,000 ohms, which, together with an un-bypassed cathode resistor of 160 ohms, allows a gain of about 4 maximum. No peaking coil is needed, as the low anode load means negligible high frequency loss, and the high-peaking circuit can also correct for the h.f. losses in the whole amplifier.

(2) The blanking mixer consists of two 6AC7s with common anode load. One acts as an orthodox amplifier; the other being fed with positive going blanking pulses of high amplitude, on the grid. These pulses cause the voltage on the anodes to fall to a very low value, to "knock a hole" in the pix output waveform. See Fig. 18a.

Blanking of the flying spot scanner is pointless, as during the transmission of a negative transparency (the polarity of the signal being adjusted before the video mixer), a blanked beam corresponds to peak white. Blanking must be in the black direction, so blanking is applied in the mixer.

(3) In this stage, the video amplifier proper acts as a limiter, with variable grid bias to adjust the clipping point and hence the height of the blanking pedestals. The clipping is not allowed to effect the video portion. In the receiver the height of the pedestals controls black level, and hence this control will alter the average brightness of the received picture.

The tube with negative going combined sync. input serves to set a sync. pulse on to each blanking pedestal, and the amplitude of the sync. is adjusted by means of variable grid bias. This sync. signal is adjusted to about 30 per cent. of the peak white level, and extends into the region known as "infra-black," or beyond black. See Fig. 18b, noting change in polarity from Fig. 18a.

(4) This stage merely serves to permit control of output level, and to reverse the polarity of the signal to white at positive polarity. It has a gain of less than unity.

(5) The cathode follower feeds the video signal at a level up to 4 volts peak/peak to line, at a source impedance of about 80 ohms.

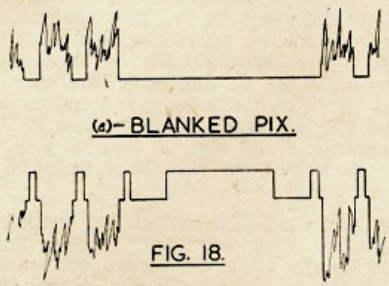
**Power Supply.**—The mixer requires 255 volts regulated—from glow tubes, and a negative bias supply of 16 volts. This last is obtained from the 6.3 volt filament in a 6H6 voltage doubler.

Under construction is a monitoring unit, as companion unit to this mixer, which will include two 3" cathode ray tubes, one as a picture monitor, and the other a waveform monitor for monitoring the pedestal height, sync. amplitude, and pix waveform. The cathode ray tubes are VCR139As.

### VIDEO RECEIVER

This receiver, being operated by a video signal, has no r.f. or detector circuitry. The video amplifier and sync. separator are fairly standard in design. A circuit is shown in Fig. 19.

It is basically an oscillograph, using a 5BP1 cathode ray tube, with 2 kv. e.h.t., but with two time bases, one at 25 c.p.s. for vertical deflection, and the other at 5,250 c.p.s. for horizontal. This provides an unmodulated raster, the picture being reproduced by video signal modulation of the grid of the 5BP1. Cathode coupled multivibrators (6SN7s) are used to generate the saw-tooth waveforms, with 6SN7s also as deflection amplifiers.



(a)—BLANKED PIX.

FIG. 18.

(b)—SYNC ADDED

For convenience in applying modulation to the grid, the grid-cathode circuit is kept near ground potential, and the final anode, and deflecting plates, run at 2 kv. positive. This entails high voltage coupling capacitors to the deflecting plates, with consequent lower capacitance than optimum for the 25 c.p.s. saw-tooth, to avoid excessively bulky components. For this reason, to preserve reasonable linearity, rather high load resistors are used—5 megohms.

Balanced shift controls are used for centreing, with a simple bridge circuit, entailing only one potentiometer each, for each dimension.

**Video Amplifier.**—This consists of two stages, using 6AC7s, shunt peaked, by the method outlined when discussing the pre-amplifier. A gain of "contrast" control at the input prevents overloading, and sets the degree of light and

shade. About 25 volts peak for white is required at the grid of the 5BP1.

**Synchronising.**—A 5,000 ohm resistor in series with the picture tube grid load serves to feed a portion of the video signal to the first sync. amplifier, a half 6SN7. Its output polarity is black positive, and the signal drives a 6SH7 clipper, using grid leak bias. The clipper removes the picture information, leaving only the composite sync. signal, i.e. it clips all above black level.

The output of the 6SH7, which is black negative, feeds a cathode follower.

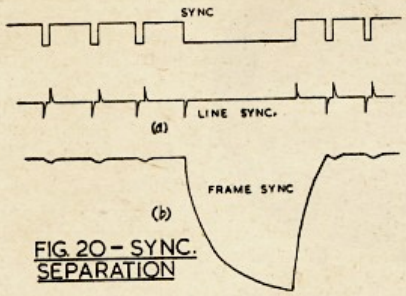



FIG. 20 – SYNC. SEPARATION

Fig. 20a shows how the differentiating network extracts line sync. information from the composite sync., negative going sync. pulses being required by the line time base.

An integrating network in the cathode circuit of the cathode follower extracts frame sync. information at this point (see Fig. 20b). This frame sync. signal is also negative going for the frame time base.

**D.C. Restoration.**—A picture signal has the characteristics of an alternating current superimposed on a direct current. The a.c. delineates the detail of the picture, and the d.c. the average brightness.

In the video amplifiers, which are a.c. coupled, the d.c. component of the picture is lost. Without this component, a picture varying from mid-grey to white (say a daylight scene) would be reproduced exactly as the same scene at dusk (mid-grey to black). If some reference is provided, the d.c. component can be inserted at any point in the system including of course, the picture tube. The reference level is conveniently made the black, or blanking level. At the end of each line, and frame, the output is reduced to zero by the blanking signal, this corresponding to black.

An inverted diode, at the grid of the cathode ray tube, will adjust the grid bias continuously, so that the tips of the blanking pedestals are always at black level, and the signal can only vary in the direction of white.

Fig. 21a, showing three dark lines, and two bright lines, without d.c. restoration, shows how the dark areas become progressively lighter. Fig. 21b, with d.c. restoration, shows how the lines will truly register the correct degree of light and shade, their pedestals being effectively "clamped" to black level. The d.c. restoring diode circuit is

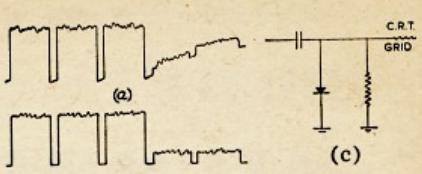



FIG. 21. – D.C. RESTORATION

shown in Fig. 21c, the diode being an OA61 germanium diode.

**Power Supply.**—An r.f. e.h.t. generator is used for the positive 2 kv. supply for this unit, as for the f.s.s. and photomultiplier. As the cathode and heater of the 5BP1 are tied, a separate 6.3 volt winding is needed for this tube, but no stringent high voltage insulation requirement has to be met.

About 350 volts positive is used for time bases, video amplifier and sync. separator. To minimise hum, the power supply is a separate unit, as for the other units.

## OPERATION

For telestills, using transparencies, no lens system is necessary, the transparency (a film negative, or positive slide) is placed against the screen of

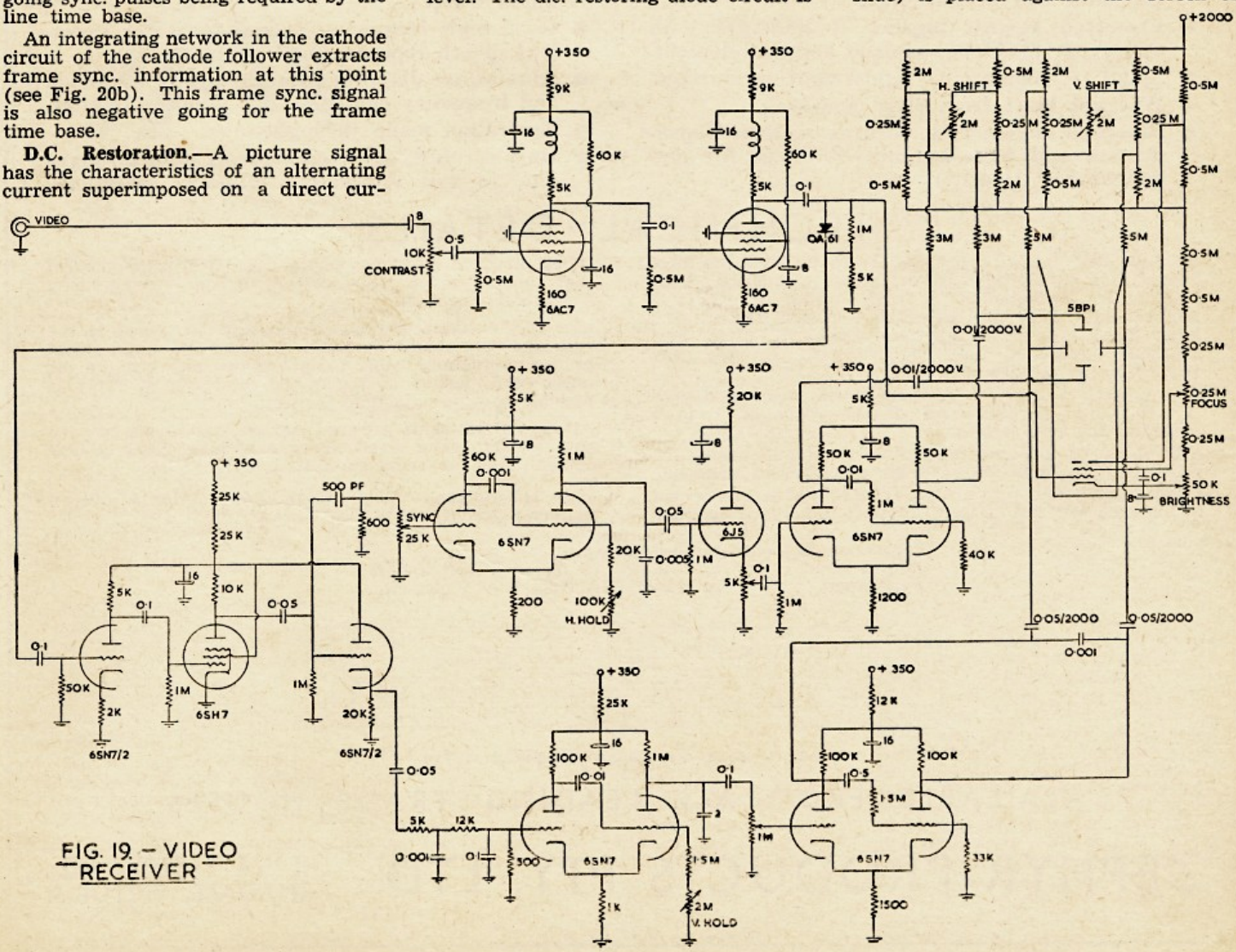
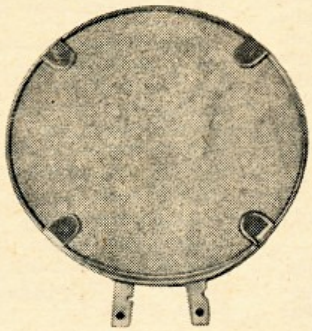
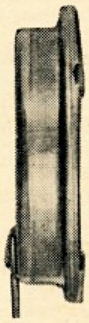


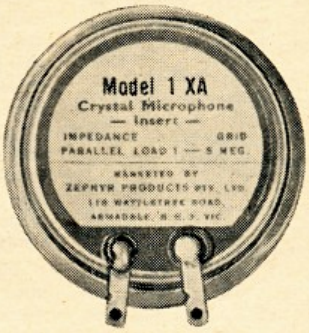

FIG. 19 – VIDEO RECEIVER

# MODEL "1XA" CRYSTAL MICROPHONE INSERT

AUSTRALIAN MADE — — FOR AUSTRALIAN CONDITIONS








FITTED WITH PLATED REAR SHIELD TO ELIMINATE HUM PICK-UP

- **Patented crystal unit guarantees outstanding efficiency and performance.**
- **Protected against ingress of moisture with approved moisture sealed crystal element.**
- **Small — compact — lightweight — durable.**
- **Will not blast from close speaking.**
- **Precision engineering ensures realistic reproduction and high output with long life and dependable operation.**
- **The only unit available with a genuine sintered metal filter.**
- **Good high frequency response ensures excellent speech reproduction.**
- **Aluminium diaphragm mechanically protected and frequency controlled by "Zephyrfil" filter.**
- **Australian made throughout.**
- **Only carefully selected cements used throughout, to suit Australian climatic conditions.**

## TECHNICAL DETAILS

Rochelle salt crystal microphones are perhaps the most widely used for all types of service where quality speech and music reproduction at high output levels is a requirement. They are dependable in performance and when fitted with the appropriate "Zephyrfil" filter, their frequency response may be adjusted to suit any application or requirement.

This crystal microphone requires to be terminated with a high value parallel load of the order of 1 to 5 megohms for best results.

The mass of the moving parts is small, hence the sensitivity is high and a high efficiency is achieved.

Light gauge solder lugs are provided so that excessive heat in soldering will not be transmitted to the crystal element.

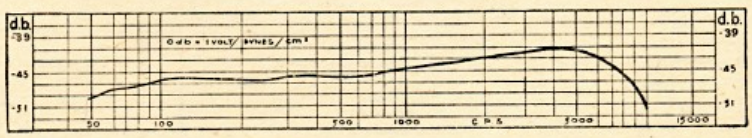
When mounted in a microphone cage, it is recommended that the insert be suspended in rubber, to eliminate shock and vibration.

One of the connecting lugs is directly connected to the case and care should be taken to solder the metal shield of the microphone cable to this solder lug, keeping the unscreened portion of the centre conductor as short as possible to eliminate hum pick-up.

All crystal elements are mounted on high grade suspension pillars being fixed thereto with a good quality cement, thus ensuring stability and long life.

Case 1½" diameter (rear), ⅜" thickness, 1-13/16" overall diameter (front) with filter fitted.

Frequency Response = 60-6,500 c.p.s.
Output Level = —45 db (0 db = 1 volt/dyne/cm²)
Impedance = Model 1XA Grid 1 — 5 megohms.




Approximate Frequency Response Curve

AVAILABLE FROM ALL LEADING TRADE HOUSES

**ZEPHYR PRODUCTS PTY. LTD.** 118 WATTLETREE RD., ARMADALE, VICTORIA

the flying spot scanner. The photocell may be located up to six feet away, and gives ample signal. See Fig. 21d.

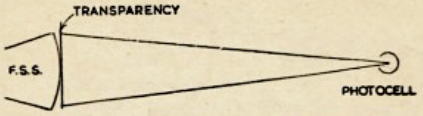



Fig. 21d — TRANSPARENCIES

With the exception of the e.h.t. for the photocell, all units are switched on, and given a five minute warming up period, in order to stabilise. The raster on the f.s.s. is then adjusted for size and aspect ratio, about 2¼" x 3". Using a c.r.o., the video mixer is adjusted to give the correct sync. amplitude. The receiver time base "hold" controls are adjusted for a synchronised raster—lines stationary, edges blanked, and no flicker. The intensity of the receiver raster is adjusted to be just visible, with its size and aspect ratio similar to that of the f.s.s.

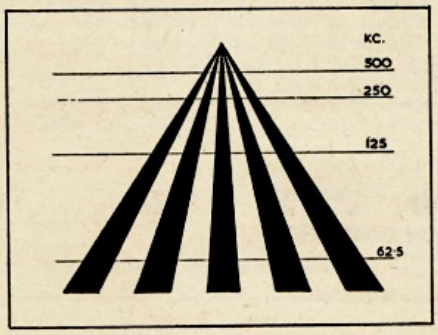



FIG. 22.– TEST PATTERN

A test transparency is placed against the screen of the scanner, the pattern being of the form shown in Fig. 22. This pattern is used as a check on linearity and resolution, and is made with Indian ink on glass.

At the apex of the pyramid the lines are at zero spacing, and the resolution required would be infinite. Progressively lower resolution is required as the pyramid becomes broader toward the base.

Provided that the pattern width as to raster width is decided in advance, the pattern can be calibrated in bandwidth required to resolve it, or the duration of signal transition in microseconds. Frequency calibrations are shown in the figure.

On test, the reproduced pattern shows a point up the pyramid where the lines appear to merge together. This is the limit of resolution, the pattern being an excellent guide to the effects of changes in circuits and constants. To date the equipment will resolve better than one microsecond, or 500 Kc.

With the lights out, the photocell e.h.t. is applied, and a picture of sorts shows on the receiver screen. The flying spot scanner is checked for focus (minimum spot size, or line width), and the contrast and pedestal height controls of the mixer adjusted for a clear picture. The monitor c.r.o. is used to watch the blanked and synchronised video waveform.

Adjustment of the high-peaker circuit, for phosphor persistence correction, is accomplished by varying the 3-30 pF. trimmer capacitor. Varying compensation through the optimum correction point shows, following a black bar, firstly a dark smear decreasing in width until a clean edge is reached, over correction resulting in a white bar following the black. Using a picture, slight over correction seems to give the clearest image, only the test pattern showing the overshoot. A transparency of a head and shoulders, or a full length figure, is well resolved, but scenes are less well resolved, detail being blurred. Further work in high-peaking, possibly using two networks in series, with differing time constants, may improve the resolution.

**Increase in Apparent Gamma.**—In the reproduction of transparencies of normal gamma, or contrast, the reproduced picture has its contrast considerably increased. On the other hand, a washed out negative or slide reproduces remarkably well, with increased contrast.

The cause is the ratio of grid voltage as to screen brightness, of the 5BP1 picture tube. The characteristic is sufficiently curved, to make brightness greater than a linear function of grid voltage. It is possible to use a gamma control amplifier—several tubes in parallel, with differing electrode potentials, so that the gain falls, as the instantaneous input rises. Some experiment in this direction is still planned, but nothing has been done to date.

### DIRECT PICK-UP

By using a lens in front of the flying spot scanner screen, an image of a raster can be formed on a picture or object placed at the focal plane. By picking up the light reflected, a range of subjects, and still pictures has been effectively televised. The position of the lens controls the position and size of the raster image, and hence the size of the subject that can be scanned. Fig. 23a shows the set-up for direct pick-up.

Live subjects can be placed at the plane of the raster image, but to date results from a head and shoulders have been poor. Lack of light is the limiting factor. The brilliance of the scanner has been increased to the limit, coincident with small spot size, and further improvement will be in the direction of more light on to photocell mosaic.

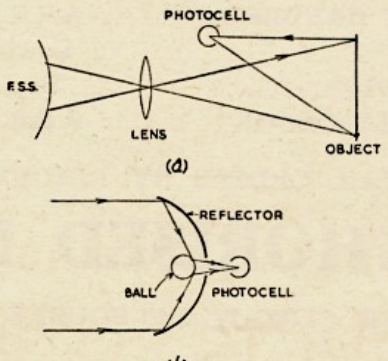



FIG. 23.– DIRECT PICKUP

Some promise of success has been obtained from a reflective system, shown in Fig. 23b, using a car headlamp reflector, and polished steel ball. Headlamp reflectors are parabolic, with the focus within the reflector. Light travels to the focus through a very large solid angle, to the surface of the ball. If this is of the right diameter—1" or more—most of the light is reflected through the hole in the back of the reflector, where the photocell is placed. Light loss will be evident at both reflecting surfaces, but an effective light transfer of 30 per cent. seems possible, and the enormously increased light collecting area should allow an area of 2 feet by 2 feet to be scanned.

With this system, the effect is that the subject is illuminated by a spotlight, with exaggerated highlights and shadow, but two photocell systems, strategically placed, and their outputs mixed via gain controls, will allow a degree of flexibility to the apparent lighting effect.

(To be continued.)

— . . . —

## MULTI-BAND ANTENNA COUPLER

(Continued from Page 3)

quencies in each band. This record will make it possible to return quickly to the correct settings when antennae are changed. (See the accompanying table for representative values of coupling.)

Don't worry if the coupler is slightly off resonance when adjusted by the above method. This will be the case if the antenna feed line is not absolutely flat. Tuning the coupler slightly off resonance is necessary to produce an s.w.r. of 1 to 1 in the link line. The final amplifier of the transmitter should always be adjusted at the transmitter end of the link line so as not to upset the impedance match in the coupler, once this has been correctly set.

Exact adjustment of the links on the coupler is desirable, but not absolutely essential. Very little difference in results will be noticed if the coupling here is slightly incorrect, so if it is necessary to move the link when changing antennae, it can be returned near enough to its original position by eye. In most cases, the tightest possible coupling will be required.

It should be mentioned in conclusion that the coupler can, of course, be designed to permit operation on bands other than those mentioned. By using four times as much inductance (about twice as many turns) for L1, the low frequency coverage can tune to 80 and 160 instead of 40 and 80 metres. Similarly, the high frequency coverage can be changed to tune to 40 and 80 instead of 20 and 40, or shifted toward higher frequencies to cover 6 and 10 metres, by a suitable change in the inductance of L2. By making L1 large enough to cover 80 and 160, it can also be made to cover 40 by shorting out about half the turns.

**DON'T FORGET! CLOSING DATE FOR COPY FOR THE JANUUARY ISSUE IS 1st DECEMBER**

# Coronation Message

In Federal Notes, published in the April, 1953, issue of "Amateur Radio," reference was made to the R.S.G.B's. Coronation Relay.

On your behalf the Federal President sent the following message of loyalty to Her Majesty Queen Elizabeth:

> "On this the occasion of Your Majesty's Coronation we, the members of the Wireless Institute of Australia, humbly tender our sincere good wishes and re-affirm our loyalty and devotion. May your reign be long, happy and peaceful."

The message was sent via the Federal Traffic Channel over three networks:—
VK3FH/VK2GW/ZL3JA/G3AHE/G2MI
VK3FH/VE8AW/G6ZO.
VK3FH/G3BKF.

The letter published herewith is Her Majesty's acknowledgment of its receipt.

As members of the W.I.A. we are honoured to receive such a communication from the Queen who, in her graciousness, has recognised the existence of our Institute. As proud citizens of one of Her Majesty's Dominions, we appreciate the privilege of belonging to a democracy wherein the Queen is not only cognisant of the existence of her people, but also genuinely interested in their welfare.

To those Amateurs who handled the message we say—Thank you! The reliability of the Amateur Communication Service has once more been proven. In the years to come, participants will be able to recall with pride the part they played.

Our congratulations go to the R.S.G.B. Organiser and his Society for a job well done.

FEDERAL EXECUTIVE.

— . . . —

## HINTS AND KINKS

When making up aluminium brackets, shields, etc., particularly during modification of equipment already in use, it will usually be found more convenient to make a template of the proposed fitting from paste-board. Having completed the cutting and trimming, and, if necessary, bending the template to the desired shape, it may now be flattened out and the most conveniently-sized piece of scrap aluminium on hand may then be selected and the fitting cut from it to be bent to its desired shape, if so required, without further trouble.

One point may be noted, it will seldom be found satisfactory to drill out the holes for any mounting bolts before bending. It is better to drill some holes to mount the fitting firmly, then to complete the remaining holes when securely in position.

It has been found that the paste-board back of old writing pads are the most readily avaliable and satisfactory material for templates, although suitable paste-board may be obtained almost anywhere, including from most suppliers of stationery requisites.—VK3FD.

Home Office,
Whitehall.
27th June 1953

Sir,

I have had the honour to lay before The Queen the Loyal and Dutiful Address of the Wireless Institute of Australia on the occasion of Her Majesty's Coronation, and I have it in Command from The Queen to convey to you Her Majesty's warm thanks for the expressions of loyalty and devotion which it contains.

I am,
Sir,
Your obedient Servant,
David Maxwell Fyfe

The President
Wireless Institute of Australia

## 1953 REMEMBRANCE DAY CONTEST RESULT

# WESTERN AUSTRALIA AGAIN!

Congratulations to the Western Australian Division for again winning the Remembrance Day Contest and retaining the Trophy for another year.

This Contest is gaining in popularity every year. This year a total of 630 logs was submitted compared with 418 last year and 384 in 1951. In addition, although provision has not been made for a listeners' section, five listeners' logs were submitted.

It has not been possible to ascertain just how many Amateurs took part in the Contest, but during log checking many missing logs were noted and an estimate of 1,500 would not be far out. As the total licences for the Commonwealth and Territories is 2,978, some of which are held by inactive Amateurs, the popularity and success of this Contest cannot be questioned.

For the first time VK1 was given official standing by allocating six points for every VK1 contact. VK1AF put in a tremendous effort and operated for the duration of the Contest, making 181 contacts.

VK1BA and VK1RL did their share by transmitting the complete log by radio to Federal Traffic Manager, VK3FH, who in turn forwarded it to the Contest Committee before the closing date for entries. As it was only possible for one station to operate from Macquarie Island, the boys tossed for the honour. However, it is difficult to say who put in the most work as getting the log through took four nights of operating. Congratulations to all concerned for a very fine piece of team work.

Two logs were received from VK9; however this does not mean that only two VK9 Hams took part.

Owing to adverse propagation conditions, the 21 and 28 Mc. bands were not used very much, but it is hoped that by next year conditions will be better and these bands will come into their own. No Interstate contacts were reported on 50 Mc.

The work of checking the logs was made easier by the extensive use of the Standard Log Sheet, and it is hoped that this will become standard practice in all future Contests. Some Divisional Secretaries took the trouble to arrange their logs in numerical sequence and to endorse the total score on the top right hand corner. This gesture was very much appreciated as it saved the Contest Committee a considerable amount of work.

A few final scores had to be adjusted where contacts did not check, but any alterations made did not affect the final result.

The ever increasing success of this Contest is a continual expression of our appreciation to those Amateurs who gave their lives in World War II. so that we could continue to enjoy this great hobby of ours, and this sentiment was expressed in endorsements to many of the logs received.

The Remembrance Day Contest is Our Contest, held in memory of our own comrades, so let us see that the entries for 1954 are even greater than this year.

—V. H. WILSON, Federal Contest Manager.

### THE TOP SCORERS

#### Western Australia

| | | | |
|---|---|---|---|
| VK6FL | 700 | Average Score .. | 582.3 |
| 6DX | 658 | Licencees in State | 183 |
| 6RU | 633 | Logs received .. .. | 67 |
| 6HK | 610 | | |
| 6VM | 509 | **Total Points .. ..** | **795.42** |
| 6GA | 389 | | |

#### Tasmania

| | | | |
|---|---|---|---|
| VK7KB | 777 | Average Score .. | 439 |
| 7RX | 474 | Licencees in State | 108 |
| 7AI | 421 | Logs received .. .. | 48 |
| 7RL | 360 | | |
| 7DZ | 314 | **Total Points .. ..** | **632.1** |
| 7LZ | 288 | | |

#### Victoria

| | | | |
|---|---|---|---|
| VK3ATN | 764 | Average Score .. | 539 |
| 3FH | 548 | Licencees in State | 961 |
| 3ADW | 520 | Logs received .. .. | 137 |
| 3JE | 513 | | |
| 3ALQ | 482 | **Total Points .. ..** | **614.46** |
| 3OM | 407 | | |

#### New South Wales

| | | | |
|---|---|---|---|
| VK2ZC | 616 | Average Score .. | 538 |
| 2JU | 606 | Licenc's in State | 1038 |
| 2DO | 549 | Logs received .. .. | 112 |
| 2AHH | 543 | | |
| 2AMR | 514 | **Total Points .. ..** | **596.1** |
| 2RS | 400 | | |

#### South Australia

| | | | |
|---|---|---|---|
| VK5MS | 790 | Average Score .. | 517.3 |
| 5FO | 572 | Licencees in State | 345 |
| 5XN | 523 | Logs received .. .. | 53 |
| 5JN | 513 | | |
| 5CY | 371 | **Total Points .. ..** | **594.9** |
| 5XO | 335 | | |

#### Queensland

| | | | |
|---|---|---|---|
| VK4RT | 772 | Average Score .. | 494.3 |
| 4TN | 678 | Licencees in State | 304 |
| 4PQ | 412 | Logs received .. .. | 53 |
| 4KW | 389 | | |
| 4TY | 370 | **Total Points .. ..** | **578.33** |
| {4DI | 345 | | |
| {4FE | 345 | | |

### REMAINDER OF THE SCORES

In addition to the six leading logs from each State, the following were also received to help swell the various States' totals and thus increase the bonus:—

#### NEW SOUTH WALES

| | | | | | |
|---|---|---|---|---|---|
| VK2GW | 365 | 2ZQ | 95 | 2AIL | 31 |
| 2AVG | 353 | 2AAW | 90 | 2IV | 30 |
| 2BQ | 343 | 2LG | 89 | 2TF | 29 |
| 2DY | 322 | 2ABE | 88 | 2AMY | 29 |
| 2BO | 313 | 2CS | 87 | 2EI | 28 |
| 2WH | 292 | 2AJQ | 83 | 2XT | 27 |
| 2AHM | 283 | 2AFD | 82 | 2AOU | 27 |
| 2AJO | 271 | 2ACC | 79 | 2AFA | 27 |
| 2ZY | 260 | 2QL | 76 | 2YB | 27 |
| 2APP | 234 | 2XO | 75 | 2AHA | 25 |
| 2FA | 217 | 2GI | 75 | 2FH | 24 |
| 2GT | 217 | 2ACI | 71 | 2AL | 23 |
| 2AAB | 203 | 2WT | 63 | 2AOJ | 23 |
| 2PQ | 195 | 2OT | 62 | 2AXZ | 22 |
| 2ACD | 194 | 2EU | 62 | 2AOI | 22 |
| 2JP | 171 | 2AAN | 60 | 2ARO | 21 |
| 2VU | 168 | 2OM | 60 | 2PL | 20 |
| 2XQ | 160 | 2RF | 59 | 2AND | 20 |
| 2PN | 159 | 2XZ | 57 | 2OW | 19 |
| 2YC | 155 | 2PV | 55 | 2AOR | 18 |
| 2ARV | 141 | 2OH | 51 | 2HZ | 18 |
| 2OY | 136 | 2AYH | 50 | 2HC | 18 |
| 2AJL | 135 | 2UC | 49 | 2PZ | 17 |
| 2EL | 132 | 2JF | 48 | 2HK | 16 |
| 2ABR | 130 | 2ASW | 46 | 2RP | 16 |
| 2OA | 129 | 2ASJ | 45 | 2SJ | 16 |
| 2VW | 121 | 2JN | 44 | 2AEZ | 16 |
| 2GR | 118 | 2AOJ | 44 | 2AVR | 15 |
| 2ADT | 115 | 2JY | 40 | 2SF | 15 |
| 2AWN | 115 | 2JQ | 38 | 2AM | 15 |
| 2AWQ | 107 | 2AIE | 37 | 2RA | 12 |
| 2AQE | 102 | 2ADL | 36 | 2VN | 11 |
| 2RH | 100 | 2RK | 33 | 2QZ | 9 |
| 2AHI | 99 | 2APL | 33 | 2BN | 9 |
| 2XN | 96 | 2BG | 33 | 2ABU | 9 |
| | | 2AMB | 32 | | |

#### VICTORIA

| | | | | | |
|---|---|---|---|---|---|
| VK3RR | 361 | 3HG | 185 | 3LA | 142 |
| 3ACE | 328 | 3QK | 184 | 3WQ | 142 |
| 3UR | 321 | 3CX | 184 | 3WM | 140 |
| 3ASB | 309 | 3ANQ | 183 | 3JC | 135 |
| 3XK | 293 | 3AFJ | 182 | 3ASG | 127 |
| 3ZU | 292 | 3ZJ | 180 | 3ALF | 124 |
| 3KC | 248 | 3HE | 177 | 3PR | 114 |
| 3XB | 242 | 3AUG | 176 | 3IO | 114 |
| 3ARL | 239 | 3GG | 174 | 3AXC | 114 |
| 3KR | 235 | 3YF | 168 | 3WY | 112 |
| 3AHH | 221 | 3RN | 167 | 3YR | 111 |
| 3AKO | 211 | 3SX | 165 | 3ANJ | 106 |
| 3ANA | 202 | 3AJU | 160 | 3SP | 106 |
| 3AGD | 202 | 3ATF | 151 | 3AMH | 103 |
| 3AZW | 199 | 3AFF | 148 | 3AAP | 102 |
| 3ZA | 192 | 3DQ | 144 | 3AZX | 101 |

| | | | | | |
|---|---|---|---|---|---|
| 3PL | 100 | 3ALE | 57 | 3AGV | 31 |
| 3AAF | 98 | 3AFO | 56 | 3ACX | 30 |
| 3LP | 98 | 3YS | 56 | 3WI | 28 |
| 3XV | 98 | 3AOW | 54 | 3ALD | 28 |
| 3VZ | 97 | 3KV | 52 | 3AZK | 27 |
| 3ABP | 97 | 3II | 50 | 3VQ | 26 |
| 3IB | 97 | 3ACN | 48 | 3SQ | 24 |
| 3ND | 93 | 3AEP | 48 | 3MH | 18 |
| 3TO | 91 | 3ATK | 48 | 3AVM | 16 |
| 3AIM | 87 | 3OJ | 44 | 3AWS | 16 |
| 3ADU | 80 | 3ACJ | 44 | 3PG | 15 |
| 3AGQ | 80 | 3HL | 44 | 3DG | 14 |
| 3XU | 78 | 3ALG | 43 | 3QZ | 13 |
| 3RJ | 75 | 3TI | 42 | 3ABA | 12 |
| 3ED | 75 | 3ALY | 42 | 3JO | 12 |
| 3AKW | 75 | 3AMZ | 41 | 3XJ | 12 |
| 3GU | 74 | 3AXR | 40 | 3RH | 12 |
| 3JD | 72 | 3FO | 40 | 3BV | 11 |
| 3KB | 72 | 3ARM | 39 | 3AID | 11 |
| 3ZV | 71 | 3AAH | 38 | 3FD | 11 |
| 3UI | 68 | 3BQ | 38 | 3ZS | 10 |
| 3LV | 68 | 3ABF | 35 | 3ABX | 10 |
| 3JA | 67 | 3AMN | 35 | 3ZM | 10 |
| 3EL | 67 | 3QU | 35 | 3AFP | 9 |
| 3BB | 66 | 3AHR | 34 | | |
| 3BG | 64 | 3BS | 33 | | |
| 3PA | 61 | 3ANS | 33 | | |
| 3AHF | 59 | 3HT | 32 | | |
| 3AEW | 59 | 3LN | 32 | | |
| 3NV | 58 | 3IE | 31 | | |

**QUEENSLAND**

| | | | | | |
|---|---|---|---|---|---|
| VK4KF | 319 | 4XJ | 43 | | |
| 4VJ | 280 | 4SE | 40 | | |
| 4WJ | 277 | 4WD | 31 | | |
| 4JF | 157 | 4HR | 27 | | |
| 4DO | 144 | 4JO | 26 | | |
| 4LN | 143 | 4AO | 24 | | |
| 4FW | 135 | 4FP | 22 | | |
| 4HZ | 135 | 4FT | 22 | | |
| 4CK | 127 | 4BW | 22 | | |
| 4SF | 127 | 4AW | 20 | | |
| 4HH | 125 | 4CB | 19 | | |
| 4BG | 116 | 4PA | 17 | | |
| 4PN | 115 | 4OB | 16 | | |
| 4HM | 112 | 4DW | 16 | | |
| 4EC | 107 | 4AF | 16 | | |
| 4ZP | 105 | 4ZM | 16 | | |
| 4NV | 98 | 4YA | 16 | | |
| 4WH | 93 | 4KS | 16 | | |
| 4RW | 70 | 4YS | 16 | | |
| 4XL | 85 | 4XG | 15 | | |
| 4GA | 59 | 4ZZ | 13 | | |
| 4GG | 46 | 4XN | 12 | | |
| 4NG | 42 | 4LG | 12 | | |

**SOUTH AUSTRALIA**

| | | | | | |
|---|---|---|---|---|---|
| VK5CE | 328 | 5DH | 84 | | |
| 5AX | 304 | 5LE | 63 | | |
| 5HI | 294 | 5RK | 63 | | |
| 5BO | 282 | 5EA | 62 | | |
| 5WO | 271 | 5WF | 59 | | |
| 5JT | 260 | 5EF | 59 | | |
| 5RR | 259 | 5TW | 58 | | |
| 5GW | 233 | 5CA | 53 | | |
| 5LB | 225 | 5TL | 53 | | |
| 5LD | 220 | 5BX | 51 | | |
| 5DP | 214 | 5KU | 50 | | |
| 5DK | 200 | 5OD | 49 | | |
| 5MD | 148 | 5WI | 48 | | |
| 5PW | 140 | 5WM | 48 | | |
| 5FM | 134 | 5DG | 47 | | |
| 5FQ | 115 | 5AW | 36 | | |
| 5JO | 112 | 5CJ | 33 | | |
| 5AJ | 110 | 5DF | 32 | | |
| 5XK | 104 | 5PS | 31 | | |
| 5MZ | 99 | 5KX | 29 | | |
| 5TJ | 99 | 5ZL | 28 | | |
| 5BS | 98 | 5QR | 12 | | |
| 5HL | 94 | 5OR | 7 | | |
| 5BZ | 85 | | | | |

**WESTERN AUSTRALIA**

| | | | | | |
|---|---|---|---|---|---|
| VK6AZ | 331 | 6ZZ | 26 | 6GH | 15 |
| 6KJ | 227 | 6LL | 25 | 6CC | 14 |
| 6TK | 199 | 6DW | 25 | 6WT | 14 |
| 6EC | 169 | 6GM | 25 | 6JS | 14 |
| 6KE | 111 | 6RO | 24 | 6PW | 14 |
| 6BO | 90 | 6NF | 22 | 6RM | 14 |
| 6TB | 78 | 6KE | 22 | 6FT | 13 |
| 6GU | 72 | 6MR | 21 | 6DF | 13 |
| 6LJ | 54 | 6HS | 20 | 6JN | 13 |
| 6LU | 46 | 6OR | 19 | 6XF | 13 |
| 6WW | 39 | 6GY | 19 | 6JA | 12 |
| 6TY | 37 | 6AR | 19 | 6TX | 12 |
| 6MK | 34 | 6JK | 19 | 6GB | 11 |
| 6WG | 34 | 6HC | 19 | 6RS | 11 |
| 6MO | 32 | 6JT | 18 | 6WM | 11 |
| 6JG | 29 | 6WI | 17 | 6FM | 10 |
| 6XG | 29 | 6AW | 17 | 6BA | 10 |
| 6UF | 29 | 6JK | 17 | 6MB | 9 |
| 6WR | 28 | 6AG | 17 | 6KW | 8 |
| 6BS | 28 | 6KU | 16 | 6DU | 8 |
| | | 6RK | 16 | | |

**DON'T FORGET! CLOSING DATE FOR COPY FOR THE JANUUARY ISSUE IS 1st DECEMBER**

**TASMANIA**

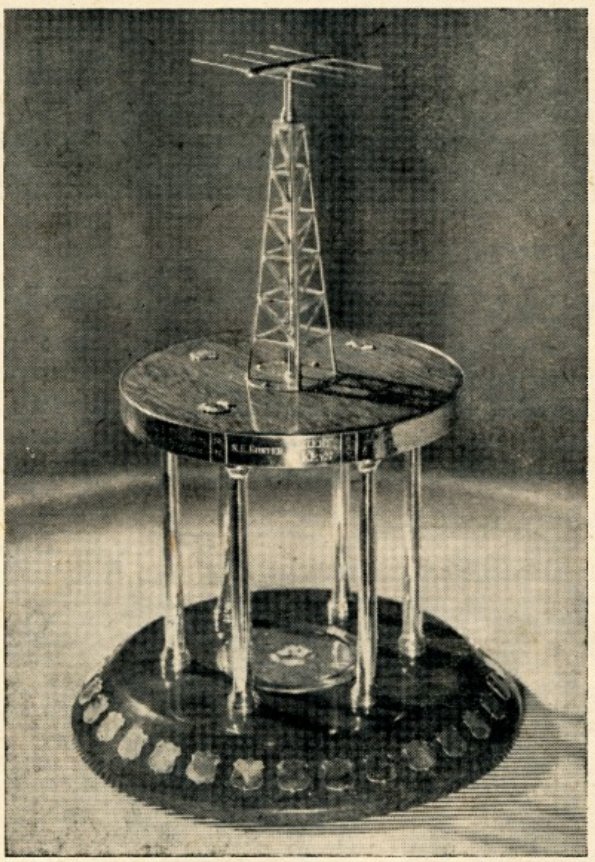
| | | | | | |
|---|---|---|---|---|---|
| VK7DW | 269 | 7CK | 58 | 7XW | 19 |
| 7SF | 253 | 7SR | 51 | 7GR | 17 |
| 7WA | 185 | 7LE | 44 | 7DR | 16 |
| 7OM | 179 | 7RK | 40 | 7FM | 16 |
| 7CA | 157 | 7MG | 35 | 7CF | 15 |
| 7GM | 144 | 7BJ | 31 | 7SW | 15 |
| 7AX | 126 | 7JD | 29 | 7LX | 13 |
| 7AL | 125 | 7AM | 27 | 7BH | 11 |
| 7LJ | 110 | 7LL | 27 | 7LD | 10 |
| 7BQ | 95 | 7MY | 25 | 7AB | 9 |
| 7WN | 74 | 7DA | 22 | 7FJ | 8 |
| 7RM | 74 | 7JT | 22 | 7GT | 8 |
| 7RT | 73 | 7GB | 20 | 7SJ | 7 |
| 7DS | 69 | 7RY | 20 | 7KX | 7 |

**TERRITORIES**

| | | | |
|---|---|---|---|
| VK1AF | 1086 | VK9GW | 558 |
| | | 9FN | 300 |

**LISTENERS' LOGS**

Check logs were received from the following listeners: Messrs. J. H. Price, D. Rankin, W. J. Wines, E. W. Trebilcock, Edwin Spencer.



Western Australian Division of the W.I.A. retains the above Remembrance Day Trophy

**50 Mc. W.A.S.**

| Call | Certificate Number | Additional Countries |
|---|---|---|
| VK2VW | 9 | 3 |
| VK2WJ | 13 | 3 |
| VK4RY | 2 | 2 |
| VK4HR | 4 | 2 |
| VK5LC | 1 | 1 |
| VK6DW | 3 | 1 |
| VK3PG | 5 | 1 |
| VK3RR | 6 | 1 |
| VK3HT | 7 | 1 |
| VK2AEZ | 10 | 1 |
| VK3XA | 11 | 1 |
| VK3GM | 12 | 1 |
| VK3ACL | 14 | 1 |
| VK3ZD | 16 | 1 |
| VK2ABC | 8 | |
| VK2WH | 15 | |

**ERRATUM**

In the article last month on the Multi-Band Tuning Unit an error appears in the second line of second last paragraph of the centre column. The size of the coil former should read "2 inch diam."

**ACCURATE FREQUENCY TRANSMISSIONS FROM VK3WI**

**The next Accurate Frequency Transmission will take place on Thursday evening, 19th Nov., 1953, on the 7 Mc. band. Details of the operating procedure and times of operation will be found on page 6 of the February, 1953, issue of this magazine.**

# FIFTY MEGACYCLES AND ABOVE

### NEW SOUTH WALES

The next meeting of the V.h.f. Group is on 6th November at Small Hall, Science House, Sydney. The meeting held on 2nd October was a great success, the lecturer being Mr. Fred Holloway, Design Engineer to A.W.A., who gave an interesting talk on Vibrator Supplies and their efficiency with respect to genemotors. He covered quite a lot of ground. Thanks Sir, for a very constructive and entertaining evening. A vote of thanks was given by Dr. Rofe.

**50 Mc.:** Little activity on this band to date, the usual chaps of course can be heard now and again.

**144 Mc.:** This band still the most used of the v.h.f. spectrum and many stations may be worked nightly.

On 13th Sept. another Fox Hunt was held which, like the last one, proved to be a boon, there were 10 mobile units and parties participating. First to find the Fox were 2OA and 2LG, 2nd 2KS and 2AGT, the rest ambled in later to join the main group. Those out were 2OA and 2LG, 2KS and 2AGT, 2HL and 2HE, 2WJ and 2APQ, 2AJZ and 2QZ, 2AWQ and party, 2ABO and party. As usual, a lot were lost due to reflections, etc. 2ANF and Ezz once again are to be congratulated on the spot they picked, namely, Hawkesbury Look Out. The day was fine and all agreed it was an excellent turn out. Congratulations to Bob 2OA and his co-pilot Cliff 2LG for being the winners of this event.

2AOE will be heard on again soon. Bob 2QZ has been active on 144 from his new location, and is putting out a good signal. Bob shifted from his Sydney location to his present one at Longueville in a few days and is on 144 Mc. already, good going Bob.

Don't forget the Woy Woy Field Day on 15th November, come along and meet all the boys.

We hear that 2AJS of Grafton has a tape with information on a 144 Mc. converter thereon, looks like the boys up there will one day connect up with Sydney or the west, they have done as good in U.S.A., so it is not impossible here. Alan 2AH has worked ZL on 144 Mc., when conditions were favourable, of course. 2OT of Newcastle is on the look out for any DX on 144 Mc., so keep a look out for him. His frequency is 144.3 Mc. approx.; you should work 2XX, 2SA and 2ACC, as they have very favourable locations.

2AOA has not been heard much of late? Also 2AST, 2QW and 2FO; how about a show boys. Sid 2AVK and 2LY both are setting up gear again for 144 Mc., hope it's not too long before we hear them. 2ABZ has been ill, we all hope he is now on deck and that we will hear him soon again.

On 4th October a direction finding field day was held in Sydney, and five participants were out in the field located at various points within 30 miles of Sydney. Home stations also participated. Starting time was 9.30 a.m. till 4 p.m., lunch 1 till 2 p.m., during which time no bearings were to be taken or given. Each station could give two only bearings, his own and one other. To score any points, each mobile station had to be QSOed. The general idea was to locate all field stations in the allotted time and plot their position on a map. There were 12 home stations participating. Some crazy and some good bearings were given. Some chaps even giving bearings in opposite directions! The active field stations were 2ANF and Ezz, 2WJ and 2ABH, 2DA and 2LG, 2NP and 2HL, 2CE. Home stations were 2LZ, 2ABR, 2JX, 2ACC, 2XX, 2APQ, 2HO, 2PF, 2ABO, 2AJZ, 2AHP. The Gladesville Radio Club 2ADY was represented by 2ANF and Ezz Griffiths and 2NP/P. It was not a very nice day as far as the weather was concerned, but all enjoyed it. We will announce the winners next month.

It is regretted that the Western boys' big "do" and convention fell on the same date as our big field day. This will not occur again as there is a roster kept now by the W.I.A. We changed our big field day to a d.f. field day at the last minute, as the big day was to have been of a different nature.

We are pleased to have heard John 2GA of Ettalong is on the air again with his usual S9 signal, after many months' silence. He says that Cess 2KR will be back also, this we must see! 2RU has been very active of late and is even coming on 576 Mc. Ted 2XX had a shack warming party on 19th Sept. and a very nice afternoon was had by all. Ted's new shack is roomy, and very nicely appointed. Those present were 2SA, 2ANF, 2HO, 2WJ, 2HE, 2AJZ, 2ANK, 2XK, 2IO, 2ADW, also Cecil Cronan and the mobile champ., Ezz Griffiths. 2APQ has not as yet got his tower up, but when he does, it will be a beaut. 2MJ has made things look nice in his new home and the shack is starting to look something also. He will be on 144 soon, so put some damping on all S meters.—2HO.

### VICTORIAN V.H.F. GROUP

The September V.h.f. Meeting was in the form of a discussion session. Concerning C.D. triangulation tests, it was decided that for the time being one of these or something of a similar description be held once a month on the second Wednesday.

Two V.h.f. Field Days were set for the remainder of 1953, the first on 25th October and the second on the 6th December. Field Days for 1954 are to be decided later.

At the November General Meeting there are to be several lecturettes concerning the v.h.f's., to be given by Amateurs active on these bands.

The 6 mx band shows signs of increasing activity. 3ATN, of Birchip, and 3CI, at Nagambie, have made ground wave c.w. contact on this band over a distance of 135 miles. Ray 3ATN writes, "I have a 4 el. wide spaced 6 mx beam at 62 ft. and a 5 over 5 for 2 mx above this, the top elements being 75 ft. above ground. When I have put the finishing touches to the 6 mx cascode converter I will build up the 2 mx tx (20w. to a 2E26) and also a cascode converter for that band. I would be interested in 6 mx QSOs, my frequency is 50.164 Mc."

Ern Ladiges, a keen listener at Daylesford reports the following 2 mx signals so far heard: 3ZL, 3BQ, 3ALH, 3ACH, 3CR, 3CP, 3BH, 3ASL, 3YS, 3ABA. His receiving set-up on this band consists of a converter, 6AK5 mixer, 955 osc., 6AG5 12 Mc. i.f. stage, fed into a four tube super het, and the antenna is a folded dipole with reflector 25 ft. high. Ern would like it made known to any Ham visiting Daylesford that a meal can be provided for him and XYL (if any). He is located in Stanley Street.

No doubt all will have seen the announcement in last month's "A.R." of the new limited A.O.C.P. licence. It will be a pleasure to welcome these new stations on the v.h.f's. (144 Mc. and above). Anyone either with such a licence or contemplating activity on the v.h.f's. is invited to attend the November meeting when there is to be a display of v.h.f. gear. V.h.f. meetings are held on the third Wednesday of each month at the Institute Rooms, 191 Queen Street, commencing at 8 p.m. All are welcome to attend, so bring along your problems and queries regarding getting started on the v.h.f's. Those Amateurs already active on these bands can help make this display a success by bringing along some of their equipment suitable for the occasion.

### SOUTH AUSTRALIA

The bands haven't been as active as they should be, but now that F.E. has announced the "Limited Licence," I really hope that there will be no limit to the activity on 2 mx, whatever the type of gear—mod. osc. included if you want to—lie down Clem and Reg and plug in the wide-band i.f. channels!

Jack 5JD told me that there was an extended period of ionispheric disturbance last month lasting for over a fortnight, which probably accounts for the short-haul 40 mx contacts with the S.E. and Murray Valley, and very good distance contacts on the v.h.f. air-radio channels. Maybe we can arrange to have the same disturbance warnings sent to this QTH for transmission over 5WI on Sunday mornings.

By the time these notes appear the v.h.f. month will have gone, but referring again to

(Continued on Page 17)

# DX ACTIVITY BY VK3AHH*

## DX HIGHLIGHTS

The appearance of **W3TCK/HL** on 14 Mc. c.w. suggests that South Korea is again on the Ham Radio map.

**KP6AK** is supposed to commence operation shortly, while **W7IIS/KP6** closed down on 20/9/53 (thanks 2AHH, 3AKO).

Jack Wheeler, **W7FNK**, well-known to many VKs as FO8AI, intends to operate from **VR3** on c.w.

Pondichery, French India, may soon be represented by **FN8AE**, while **TI9UXX** (Cocos Island), operated by W6UXX, is likely to appear this spring.

## BAND CONDITIONS

**3.5 Mc.**: DX on this band is always to some extent a fight against noise, and the approaching summer does certainly not improve things in that regard. However, propagation conditions in general were quite fair during September. Several openings to Europe as well as North America were reported and observed here.

16-year-old s.w.l. **Dave Jenkin**, of Box Hill, Vic., reports W2PEQ on c.w., while **3AHH** heard a series of Europeans (2030-2130z) of which SM5KD, DL1MM and DJ1TU had relatively strong signals.

**7 Mc.**: Spring brought an increasing QRN level on this band, but DX conditions were again quite good to all parts of the world except South America. Throughout the month European openings were remarkably stable over the long path (0600-0800z), while the short route also provided good signals from the old continent (2000-2230z). Not many African or Mediterranean stations could be worked or heard during September which, however, appears to be more a matter of inactivity "over there" rather than bad conditions. The band opened to those areas on both short and long paths (2000-2100z and 0700-0830z). Central American break-throughs were regular during the first half of the month (0600-1200z) with sometimes excellent signal strengths. Conditions to W land, the Pacific Islands, and Far East were of the usual good quality.

All reports include the normal run of Ws*, in particular those of Russ **1RL**, and Frank **2QL**, while Laurie **2AMB** also worked KW6BB* and a number of Gs*. Bill **3JE** QSOed KH6s* and KX6s*. Eric **BERS195** heard DU7SV, JA3YL, FK8AO, KX6BE, VP9BF, VP9BO, KB6AY, YK2BB, KX6BF, VR2CG, VS9AS (2000z), IT1TKK, FA8CR, ZK1AB, ZC4CA, 5A2CJ, VU2AC, SU1SS, FK8AB, Europeans UQ2KAA and UA0KKB. Young **Dave's** c.w. list shows KP4CC, FK8AO, Gs, DLs, Fs, KG6s, and TI2RC on phone. 3KR said that **3AHF** worked HP3FL* on phone. Eric **4EL** reports G5HH*, I1CUV*, SM5OS*, IT1TKK, LZ1KAB and others. Aussie **4TN** made phone contacts with HP3FL* and a series of Ws*. **Erg 5KU** found conditions better on this band than on 14 Mc., and his long list of good DX proves it: KL7AUG*, KX6BF*, FK8AC*, KP4TA*, KH6AVH*, VK9GM*, KZ5CP, KG4AN, PK6BA, DU7SV, VP9BF, VR2CG, KB6AY, CN8EG, VQ3KIF, GI8GK, DLs, Gs, I, PA0, EA, YU, LA, SM, ON4, 4X4s, UQ2 and UA4. **3AHH's** log mentions CN8AF*, KG6GX*, TI2PZ*, G3BTA*, F8QJ*, plus other Europeans* and KP4KD, XE1KB, FK8AB, VQ3KIF, KX6s.

**14 Mc.**: This month provided openings to all continents in a more or less regular fashion. European, Mediterranean, and Middle East conditions were reasonably steady throughout the month, the first half of September mainly over the short path (1100-1500z), while long route break-throughs to above areas (0500-0830z) predominated during the latter half. The east coast of W land often started to break through as early as 1000z. 2000-2400z was another period for openings to that area. Erratic short-route conditions to the west coast of North America, Central America, and South America were reported and observed here between 0300-0700z. African long route openings sometimes occurred around the same period. Times for South East Asia were 2200-2300z and 1000-1300z.

Here is what **Dots and Dashes** brought forward: **2QL** complains about high noise level at his present QTH, but anticipates to change it very soon. Frank is still using low power and logged Europeans*, 5A1, FA, CN8, KV4, KP4, and others. **2AHH** stepped into the DX with all enthusiasm, greatly assisted by his 60 ft. high rotary beam for this band. Noel's listings are Gs*, DJ*, OH*, OE*, OZ*, OK*, SPs*, SM*, KV4BB*, FI8AR*, YI2AM*, FA8AY*, C3BF*, YU*, DM*, and 4X4BR*. Harry **3GU** reports GD3FB*, SV0WE*, YV5AE*, ZS2BC*, ZS2CV*, Gs*, and other Europeans*. **3JE** worked FA3OA* and the common run of Europeans*. Jack 3JJ QSOed ZB1BU*, ZS4GD*, ZS6CY*, ZS5YF*, CP1BX*, ZK1AB*, PJ2AJ*, I*, PA0*, Gs*, SMs*, DJs*, KAs*, JAs*, and Ws*. Ken **3KR** lists YV5AE*, HR1AA*, KS6AB*, VP6FL*, KL7AQZ*, FK8AO*, TA3AA*, I*, EA*, DL*, OD5BH*, FK8AE*, KB6AY*, 4X4BN*, VR2BZ*, KV4BB*, FK8AC*, Ws*, and KH6*, while John **3AKO** was successful in contacting W7IIS/KP6*, KR6ME*, FK8AE*, Gs* and JAs*. Ken **3ANP** QSOed W7IIS/KP6*, 4S7XG*, HS1WR*, HS3CA*, CR9AF*, CT1PW*, VS6CR*, KR6LP*, VS1FD*, Gs*, SMs*, PA0*, DJ*, HB9*, OH*, KL7ATT*, KB6AY*, KG6s*, KAs*, and JAs*.

**Dave Jenkin** presents a long list of Europeans of which G6ZO was heard at the unusual time 0915z. Further listings are: LU4ZM (2345z), ZK2AA, VR4AE, DU1CV, VP5SC (0425z), VR2CG, FK8AO, ZS1JA, KR6VR, KR6IN, DU1CE, ZC5VS, KZ5GH, VU2CS, AP2R, ZS6CY, VK1BA, Ws, KAs, and UA0KFA—good going Dave, but don't forget your school work! **4EL** reports European break-throughs around 2330 and 0100z which are of special interest as no other report mentions Europeans at that time. Eric's listings are ZB2A*, I1KA*, plus other Europeans* (1300-1500z), ZC4IP*, SU1SS*, FQ8AP*, OD5AB*, ZD4AB*, HR1AA*, VK1BJ*. Bob **4RW** QSOed FI8AT*, C3BF*, KB6AY*, KW6BB*, and YU*. John **5HI** lists ZS1JA*, ZS5AM*, and JZ0KF, as reported by 5RK. **5KU** logged KR6MW*, DU7SV*, HR1AA*, CR9AF*, C3AW*, KL7ATN*, FO8AB*, FK8AE*, DU1CV, ZK2AA, VU2, VS6, KB6, KR6s, KG6, KH6, KAs*, JAs*, Ws and VK9YY*. Ray **7RT** reports KZ5*, KH6*, FK8AO* FK8AE*, KG6AEJ*, KR6IN*, LU, YU, Ws*, and JAs*. My own listings are ZC4IP*, VR4AB*, VS1FZ*, KR6IN*, Gs*, DLs*, OHs*, SM*, KH6ASU/KM6*, HZ1AB, ET2SM, ZC5VS, ZC5VM, and VU2CS.

Activity on 20 mx **Phone** is also well covered by incoming reports: Russ **1RL**, this month's representative of the Macquarie Island station (operated by Scott 1AF, Brian 1BA, and Russ), reports Ws*, JAs*, and VK1HM*. **2AHH** mentions XE1AC*, HR1BG*, YV5BZ*, FO8AB*, VS1*, VS2*, GM3DFL*, CT1*, PI1J*, F*, HB9*,

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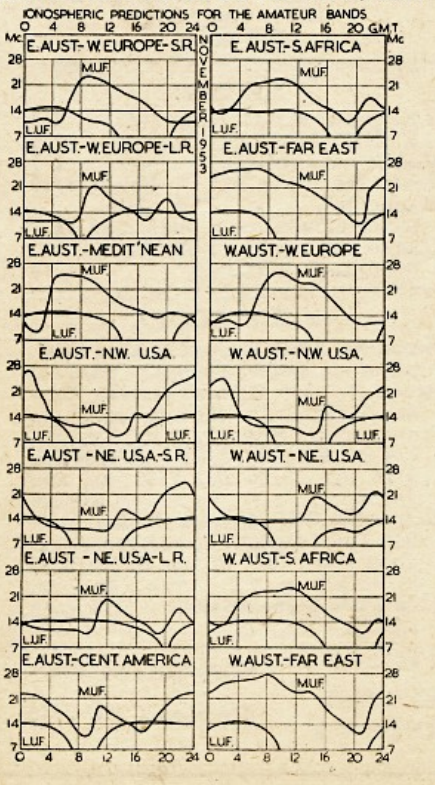
ZB1BU*, OE*, KX6*, VU2EH*, TI8RS*, OD5BH*, ZC5VR*, AG2AF*, IT1SMO*, W7IIS/KP6*, HP3FL*, YI2AM*, 3V8, AP, 4S7, CN8, HZ, HS, ZS6, and OA. Hans **2AOU** logged JAs*, W*, HZ1SD, ZK2AA, VR3C, VU2CQ, VS6CL, KX6, KW6, KG6, KJ6BA; while Ken **3KR** spoke to HR1BG*, VS2CP*, OA4AI*, ZC5VR*, VS1CZ*, and I*. **3AKO** QSOed W7IIS/KP6*, VS2CP*, PA0*, Gs*, JAs*, FK8AB*; and **3ANP** worked VS1CZ*, VS1FD*, and Is*. Ray **3ATN** logged ZS6HN*, ZC5VR*, CR9AH*, GD3UB*, YS1O*, Gs*, DL*, OZ*, PA0*, SM*, FK8*, GM3DHD*, HR1BG*, KP4TP*, HK1DZ*, KA0IJ*, KW6*, W*, and VP1ZU. **4EL** reports ZC5VR* (0100z) and Europeans*; and **4RW's** log mentions VR4AE*, HR1BG*, CN8MM*, ZK2AA*, ZB1BU*, OA4AI*, HS1WR*, 4X4BG*, HK4FV*, CR9AH*, MP4HBK*, AP2R*, KR6*, and I*. **4TN's** log shows OA4AI* and HC1FS*. **5HI** logged CN8CS*, VU2ET*, HC1FS*, KX6BC*, KA8GC*, OD5AB*, PA0*, DL*, F*, Gs*, TA3AA, HZ1AB, HZ1SD, LU6AJ, and PY2CK. Clarrie **6LL** reports Gs*, Is*, Ws*, 4S7SW*, 4S7FG*, VS1CZ*, VS1AB*, VS1EM*, VS1DV*, and VS2DV*.

**21 Mc.**: A general improvement of DX conditions on this band was typical for September. Openings appear, nevertheless, to be somewhat erratic except up in the North, where 9GW reports excellent conditions to practically all continents. W land and Central America were likely to break through between 2300z and 0400z, while African conditions occurred in the period 0500-0800z. European openings were only reported by stations in North Queensland and Papua and the times were between 0900-1300z.

**2AHH** mentions TI3LA* and HK2OA; and Quentin **3IM** was again on the job with results like KZ5WZ*, VQ4EH*, ZS6TE*, ZE2JK, YI3WH, JA1CO*, KG6*, Ws* on phone, and JA1AL*, Ws*, and KG6FAA* on the key. **3JE** QSOed **KA2DC***, and Percy **3PA** reports DU7SV*, TI2EV*, KZ5CP*, ZS6TE*, YI3WH, Ws*, VR2CU and JAs. **4EL** mentions Europeans on c.w.: DL1HS*, DL1FF*, F8OL*, G6QB*, HB9BS*, and on phone: I1CAQ* and EA1AB*. Eric's further listings are Ws*, JA3BE*, KA7RC*, DU7SV*, and OA4CL*. **4TN** spoke to TI2EV*, OA4CL*, KZ5WZ*, ZS6OY*, VQ4EH*, ZS6DW*, KG6*, KA7MK*, Ws*, JAs*, and heard ZE2JQ and DU7SV. Basil **6BS** reports: JA3BE*, VS1FK*, VU2AT*, VU2ET*, ZS5P*, ZE2JK*, ZE2JQ*, ZE2KF*, 4S7LB*, VQ2PL*, VQ4VL*, ZS6AFP*, ZS6JI*, KG6*, ZS6AJB, and DU7SV. Geoff **9GW** mentions a long list of Is*, DLs*, Gs*, FA3HY* and **4X4GB***.

**28 Mc.**: This band seems to open up for a short period (2300-2400z) in Queensland and Papua. **4TN** heard several KH6s, while Les **4XJ** mentions W5UKU*, W7JT*, XE2WE*, **XE1GE***, KH6ARN*, and W6NGZ*. **9GW** worked **KA7RC*** and W4VVU/MM*.

## PREDICTION CHART FOR NOV., 1953




### GENERAL NEWS

Confederation of Eritrea and Ethiopia resulted in one prefix for that country—ET2. 4S7 is the new prefix for stations on Ceylon (ex-VS7). VS1 stations obtained permission for phone operation on 21 Mc. (thanks 9GW). This year's expedition on Macquarie Island will probably be relieved before the end of the year. VK1 boys down there expect to begin operation on 21 Mc. towards the end of October (thanks 1RL). DM is a new prefix for the Soviet occupation zone of Germany.

The prefix ZC5 may soon be changed to VS4. Several stations are now operating in that country. PZ1WX and PZ1AL are stations in Dutch New Guiana. KA0IJ (Iwo Jima) is reported to be active again. F3RG (ex-FD3RG/FF3RG) intends to work mainly on 21 Mc. as a FB8 in Madagascar, where FB8BB expects to re-open his station this spring after returning from leave in France. Five stations are now active in New Caledonia, and FK8AO operates on 21 Mc. (thanks FK8AC). JZ0KF, who asks for QSL via A.R.R.L., has been heard on 21 Mc. Active stations in Pakistan are APs 2K, 2L, 2N, 2R, and 5A. AP2R's operating frequencies are 14070 Kc. on c.w. and 14200 and 14220 Kc. on phone. Stations in Tangier are CNs 2AO, 2AP, and 2AS, of which CN2AP is reported to operate on 21 Mc. KC6AA is on Yap Island (Caroline Island).

The following VKs are listed in the results of the "6th All-European DX Contest 1952" (published in "OZ, Tidsskrift for Kostbolge-Radio," August, 1953): **VK5FH 4928 points**, VK2GW 1218 points, VK3XK 432 points.

## DX C.C. LISTING

### PHONE

| Call | No. | Ctr. | Call | No. | Ctr. |
|---|---|---|---|---|---|
| VK4HR | 12 | 172 | VK4RT | 22 | 124 |
| VK3BZ | 3 | 163 | VK4WJ | 17 | 122 |
| VK3EE | 10 | 163 | VK4JP | 8 | 114 |
| VK6RU | 2 | 159 | VK4DO | 20 | 112 |
| VK4FJ | 21 | 158 | VK3ATN | 26 | 112 |
| VK3JD | 1 | 155 | VK5MS | 24 | 109 |
| VK4KS | 9 | 152 | VK4NC | 28 | 109 |
| VK6KW | 4 | 150 | VK3HO | 25 | 103 |
| VK3LN | 11 | 141 | VK2ADT | 13 | 102 |
| VK3AWW | 14 | 140 | VK2AHA | 15 | 102 |
| VK3JE | 7 | 139 | VK6PJ | 19 | 101 |
| VK4WF | 16 | 137 | VK3IG | 5 | 100 |
| VK4RW | 23 | 127 | VK3GG | 18 | 100 |
| VK6DD | 6 | 126 | VK5LC | 27 | 100 |

### C.W.

| Call | No. | Ctr. | Call | No. | Ctr. |
|---|---|---|---|---|---|
| VK3BZ | 6 | 207 | VK4RF | 11 | 125 |
| VK4HR | 8 | 195 | VK3YL | 39 | 125 |
| VK4FJ | 29 | 184 | VK3YD | 27 | 123 |
| VK3FH | 15 | 182 | VK3EK | 3 | 122 |
| VK4EL | 9 | 172 | VK3JI | 25 | 118 |
| VK3CX | 26 | 160 | VK3HT | 37 | 117 |
| VK5RX | 23 | 159 | VK3PL | 38 | 117 |
| VK2EO | 2 | 152 | VK3UM | 12 | 116 |
| VK3CN | 1 | 151 | VK7LJ | 24 | 114 |
| VK2GW | 16 | 151 | VK4DA | 7 | 113 |
| VK6SA | 28 | 150 | VK7LZ | 17 | 112 |
| VK6RU | 18 | 147 | VK4RC | 13 | 107 |
| VK4QL | 36 | 146 | VK6KW | 40 | 104 |
| VK5BO | 33 | 144 | VK2YC | 34 | 103 |
| VK3VW | 4 | 143 | VK3APA | 14 | 101 |
| VK2QL | 5 | 142 | VK3NC | 19 | 101 |
| VK4DO | 20 | 141 | VK2OA | 32 | 101 |
| VK3KB | 10 | 138 | VK7RK | 22 | 100 |
| VK3JE | 21 | 137 | VK2AEZ | 35 | 100 |
| VK5FH | 31 | 134 | VK9XK | 41 | 100 |
| VK3XK | 30 | 128 | VK3RJ | 42 | 100 |

### OPEN

| Call | No. | Ctr. | Call | No. | Ctr. |
|---|---|---|---|---|---|
| VK3BZ | 4 | 220 | VK7LZ | 23 | 116 |
| VK4HR | 7 | 210 | VK3VQ | 46 | 116 |
| VK4FJ | 32 | 200 | VK2ASW | 53 | 116 |
| VK3JE | 12 | 198 | VK3JA | 43 | 114 |
| VK2NS | 16 | 195 | VK2ADT | 14 | 113 |
| VK6RU | 8 | 193 | VK3HO | 38 | 111 |
| VK3HG | 3 | 181 | VK3PG | 47 | 111 |
| VK4EL | 10 | 172 | VK3MM | 49 | 111 |
| VK6KW | 13 | 171 | VK4RC | 21 | 110 |
| VK2DI | 2 | 170 | VK3ZB | 34 | 110 |
| VK3KX | 1 | 167 | VK2ZC | 25 | 108 |
| VK4KS | 24 | 167 | VK3KR | 56 | 107 |
| VK4DO | 15 | 165 | VK2YL | 11 | 106 |
| VK3AWW | 45 | 150 | VK3AWN | 36 | 105 |
| VK3LN | 29 | 144 | VK2VN | 18 | 104 |
| VK5FL | 26 | 143 | VK4UL | 27 | 104 |
| VK9GW | 48 | 143 | VK6PJ | 44 | 104 |
| VK4WF | 40 | 141 | VK6PW | 50 | 104 |
| VK3MC | 5 | 139 | VK2HZ | 17 | 103 |
| VK3OP | 19 | 137 | VK7KB | 30 | 103 |
| VK6DX | 42 | 137 | VK2TI | 37 | 103 |
| VK4RW | 52 | 137 | VK3YS | 57 | 103 |
| VK6DD | 22 | 136 | VK7RK | 31 | 102 |
| VK3HT | 41 | 135 | VK4TY | 35 | 102 |
| VK2ADE | 28 | 133 | VK9XK | 54 | 102 |
| VK2AHA | 9 | 128 | VK5HI | 51 | 101 |
| VK2AHM | 20 | 125 | VK2ACX | 6 | 100 |
| VK3JI | 33 | 119 | VK2TG | 39 | 100 |
| VK5LC | 55 | 118 | | | |

QTHS of interest:—

AP2R, P.O. Box 2111, Karachi, Pakistan.
FB8BI, P.O. Box 587, Tananarive, Madagascar.
Ex-FB3ZZ, Joseph Klein, Rue du Convent, a Kaysersberg (Haut-Rhin), France.
FY7YE, Mario de Lepiner, P.O. Box 60, Cayenne, French Guiana.
HE1C, via USKA.
HH3DM, Don Morris (ex-W0EMN), Box 943, Port-au-Prince, Haiti.
M1AB, P.O. Box 72, Ravenna, Italy.
MF2AE, P.O. Box 5, Trieste, Free Territory of Trieste.
OD5BH, P.O. Box 235, Tripoli, Lebanon.
OD5XX, via OD5AB.
ST2AR, A. E. Dowdeswell, c/o. Sudan Airways, P.O. Box 253, Khartoum, Sudan.

**QSLs** reached **2AOU**: TI4JG, KL7AOU; **3KR**: FO8AI, VK1HM, ZC5VR, FI8AE, MP4HBK; **3AKO**: HR1BG; **3ATN**: ZC5VR; **5HI**: ZC5VR, ZC5VS, KR6VR, HK5EV, HK1DZ, HC2OM, PY2AA, SU1GB, MP4HBK, YK1AH, FO8AI, HP1MD, HP3FL, MI3LK, ZB1AQ; **5KU**: NE1NMC, KZ5GH, FI8AE; **BERS195**: 5A3TR, SU1TQ, LZ1KSA; **3AHH**: HR1BG, KZ5KG, CN8AF, 4X4BT, FO8AI, and ZK1BG.

This month my thanks go to VKs 1RL, 2QL, 2AHH, 2AMB, 2AOU, 3GU, 3IM, 3JE, 3JJ, 3KR, 3PA, 3AKO, 3ANP, 3ATN, 4EL, 4RW, 4TN, 4XJ, 5HI, 5KU, 5RK, 6BS, 6LL, 7RT, 9GW and our keen s.w.l's. BERS195 and Dave Jenkin.

Don't forget 80 mx, fellows—good hunting!

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## FIFTY Mc. AND ABOVE

(Continued from Page 15)

the contest, Council agreed to the suggestion of a distance prize for the country member—defined as resident outside the 25 mile radius—who works the city member over the greatest distance. Multipliers will apply: For 50 Mc. contacts, distance will be multiplied by 2; for 144 Mc. by 3; 288 Mc. by 4; and 576 Mc. by 5.

Being a musician by semi-profession, I was tickled with the "G-string" transmission line that I re-read again recently. To give it its correct title, "A Surface Wave Transmission Line," it was developed around 1950 by an American Signal Corps expert and an Amateur version appears in the April, 1953, issue of "CQ" under the penship of K2CHF. It is useful when there is a straight section of transmission line between the tx and radiator and is particularly useful where the frequency is approaching 2,000 Mc. (if the size is to be kept down); radiation losses are reduced considerably along with transmission line losses which occur when solid dielectric is used. 12 or 14 gauge enamelled copper wire can be used and the energy is propagated by flaring out the outer co-ax conductor into a cone (21 inches long and 13 inches throat diameter for 2,400 Mc.), whilst the inner conductor connects to the enamelled wire. The thickness of the coat of enamel is important and there is a minimum thickness for each frequency—greater thickness will confine the u.h.f. field closer to the guiding wire. A most intrigueing piece of "what-not."

Perhaps the Contest will entice Hughie Lloyd out of hiding, along with some other signals from the Murray Valley gang—seems to be plenty of social activity and viewing of gear, but haven't heard of anything that would really make news. So 5TL, 5XO, 5RE, 5KU, Tom, Alec, Hobby and Harry, what about it. After all I do manage to occasionally put an 80 mx signal up there. Adelaide was graced with a visit from Wally 5DF who is keen on 50 c.p.s., h.f. and v.h.f.—2 mx I think—and still hopes to bridge the gulf soon. Local activity on 144 Mc. is confined mainly to after dinner chats.

On 288 Mc. there has been considerable rebuilding. Inky 5WF, after an injection of ozone, came up on 1 mx (to the amazement of the regulars). A most unpredictable fellow if there ever was one. Where did he rat the parts from, Warwick? Col 5CJ has made a return with new gear, sounding very good. 5LB, 5LN, 5NR, and 5JV all pretty regular with 5SB going portable to Mt. Lofty. 5MX using 15Es to warm his feet on the cold nights (heaters use about 30w. each), whilst 5PU and 5DD, Bob and Doug, getting a lot of fun out of their gear.

Ray 5BT has had enquiries about sundry conversions with his ZCs, etc., from Interstate and I may have enticed him to place a piece of carbon paper beneath his reply and forward same copy for "A.R." Finds that the co-axial tuning is more selective than anticipated and needs to tune the mixer when working.

I am preparing a circular for country members re a monthly sheet of information, technical and otherwise, which is proposed by Council if we get enough supporters; so keep your eyes open and if you want hard enough, will endeavour to provide the service. Oh, woe is me, who'd be a programme organiser and scribe?

Roy 5DA, at Regional 5CK, has worked the city on 144 Mc., so we have a good start for the contest. Nice work.—5XU.

# AMATEUR CALL SIGNS

## FOR THE MONTH OF AUGUST, 1953

### ADDITIONS

VK—

**New South Wales**

2AOZ—L. H. Ferris; Station: No. 4 Powers Court, 77 North Steyne Rd., Manly; Postal: C/o. 109 Grand Pde., Brighton-le-Sands.
2AUC—P. Bobileff, 270 Johnston St., Annandale, Sydney.
2AWX—Wireless Institute of Australia (Hunter Branch); Station: Technical College, Tighes Hill; Postal: C/o. Mr. V. Fitton, Sec., Hunter Branch W.I.A., 34 Fawcett St., Mayfield.

**Victoria**

3KI—T. P. Kirby, 79 Normanby Rd., Kew.
3AHC—H. N. Charles, 17 Valley View Rd., Glen Iris.
3AMQ—Ballarat & District Radio Society; Station: Y.M.C.A. Buildings, Camp St., Ballarat; Postal: C/o. A. C. Lord, Sec., 8 Queen St., Ballarat.
3ARU—A. N. Jones, 33 Thistle St., Brunswick.

**Queensland**

4NP—N. F. Wilson, Cr. Newman Ave. and Kelsey St., Camp Hill, Brisbane.

**South Australia**

5BJ—M. Bradley, 6 Taylors Rd., Mitcham.
5ET—Edo Van Tijn, Acheron Ave., Blackwood.
5WC—Woomera (S.A.) Amateur Radio Club; Station: Woomera Radio Club Rooms, Baringa St., Woomera; Postal: Mr. R. A. Catmur, Hon. Sec., 24 Burrimul St., Woomera.

**Territories**

9WZ—F. G. Anear, R.A.A.F. Base Squadron, Momote, Admiralty Islands.

### ALTERATIONS

VK—

**New South Wales**

2HT—287 Fitzgerald Avenue, Maroubra.
2NK—142 Darvall Road, West Ryde.
2QI—25 Castle Street, Randwick.
2RL—541 Darling Street, Rozelle.
2XU—511 Guildford Road, Guildford.
2ZR—15 Summit Avenue, Earlwood.
2AEJ—2 Ashley Street, Waverley.
2ANG—52 Alfred Street, Waratah, Newcastle.

**Victoria**

3ZI—9 Tyrone Street, Ormond.
3AEJ—C/o. Station 3SH, Swan Hill.
3AJZ—Station: Coalville Road, via Moe; Postal: C/o. Noble, P.O. Box 83, Moe.
3ALT—48 Chelsey Street, Deer Park.
3ATL—Postal: C/o. W. Zimmer, 70 Skene St., Newtown, Geelong.
3AVZ—1 Dalley Street, Clifton Hill.

**Queensland**

4BF—Station: Quilpie Road, Charleville; Postal: Box 43, Charleville.
4BG—80 North Street, Maryborough.

**South Australia**

5OB—Postal: A.R.D.U. Trials Flight, Woomera.
5PH—Abbeville Terrace, Marion.
5PN—2 Austell Street, Unley.
5RG—9 Richmond Ave., Colonel Light Gardens.
5SR—15 Giles St., Toorak Gardens, Adelaide.

**Western Australia**

6DJ—9 Cargill Street, Victoria Park.
6EL—Evans Street, Geraldton.

**Tasmania**

7FJ—10 Tower Road, New Town.
7PF—1 Hart Street, Launceston.

### DELETIONS

**New South Wales:** VKs 2UL, 2ABW, 2ANT.

**Victoria:** VKs 3JF, 3ADS, 3AWK.

**Queensland:** VKs 4AV, 4EB (now operating under VK2AUC).

**South Australia:** VKs 5MP, 5WN, 5WZ (now operating under VK9WZ).

## FOR MONTH OF SEPTEMBER, 1953

### ADDITIONS

VK—

**New South Wales**

2AAC—M. J. Cosgrove, 10 Huntingdale Ave., Narwee, via Herne Bay.
2AGN—G. E. Nixon-Smith, "Cranston," 256 Howick St., Bathurst.
2AIT—G. N. Chapman, 18 Fernhill Ave., Epping.
2AQI—W. A. Cooper, 178a Jessie St., Armidale.

**Victoria**

3UM—W. T. S. Mitchell, 1946 Malvern Rd., East Malvern.
3AMT—A. M. Woolley, 261 Glenferrie Rd., Malvern.
3ANY—J. N. Blake, 36 Grandview Ave., Pascoe Vale South.
3APN—P. W. Reid, 17 Crawford St., Seymour.
3APR—J. R. Hally-Burton, Stonyford.
3ATJ—J. T. Wilson, 6 Grant St., Colac.
3AWF—W. J. Falconer, 21 Irilbarra Rd., Canterbury.
3AWQ—W. Reilly, 2 McDonald St., Northcote, N.16.

**Queensland**

4HO—H. T. Overend, Mona St., Edge Hill, Cairns.
4MI—C. C. Mabbott, Station: Ham St., Cloncurry; Postal: C/o. Flying Doctor Service of Aus. (Qld. Section), Cloncurry.
4SF—J. C. Watson; Station: Mobile on board M.V. "Silver Fin;" Postal: 12 Bernard St., Claremont.
4TF—R. C. Tow, 5 Brook St., Boonah.
4TQ—G. S. Ericksson, Station: 50 Ninth Ave., Railway Estate, Townsville; Postal: 48 Ninth Ave., Railway Estate, Townsville.

**South Australia**

5EG—E. G. Barnden, 34 Lindsay Ave., Woodlands Park.
5FE—F. Ward, 257 Halifax St., Adelaide.
5HQ—C. H. Judd, 215 Goodwood Rd., Colonel Light Gardens.
5KI—K. Postler, 508 Moscow St., Peterborough.
5PQ—P. Muscat, Shakespeare Ave., Magill.

**Western Australia**

6EJ—E. J. R. Cowles, C/o. W. Aggiss, "Hadleigh," Karlgarin.
6JR—J. R. Wood, Kellerberrin.
6WJ—W. W. Jacobs, 134 London St., Mt. Hawthorn.

**Tasmania**

7MH—M. H. B. Hurburgh, 22 Clarke Ave., Battery Point, Hobart.

**Territories**

9WP—W. A. P. Luke, C/o. O.T.C.A. Radio Station, Rabaul.

# FEDERAL, QSL, and DIVISIONAL NOTES

## FEDERAL

### AMATEUR CALL SIGN BOOK

The Wireless Institute of Australia has been successful in negotiating for the copyrights to publish the Australian Call Sign Book. The copyrights will hold for a period of five years subject to renewal, and will be effective outside of the Commonwealth of Australia.

The Call Book will be published each year at the same time and will contain up-to-the-minute amendments, changes of address, additions, etc.

It is expected that the first issue will become available as at 1st March next year and, subject to changes in material costs (which incidentally are becoming considerably more stable) the publication should sell for a nominal sum.

The more copies that are sold the cheaper the publication can become, so it is up to every Institute Amateur to see that he has a copy himself, sends a copy or two to his favourite overseas friend and generally encourages all other Amateurs to have a copy on hand.

### AMATEUR LICENCES IN UNITED KINGDOM

From time to time Australian Amateurs for one reason or another travel across to the U.K. for an extended period and desire to take out an Amateur licence for the duration of their stay.

The Amateur Licencing Division of the Post Office has recently been transferred from the Engineering Department to the Overseas Telecommunications Department and the staff dealing with this work have been moved from Brent Building to St. Martin's-le-Grand.

All correspondence or visits relevant to Amateur licencing will be handled from: Overseas Telecommunications Dept. (Radio Branch), Headquarters Building, G.P.O., London, E.C.1.

### ENGLAND-NEW ZEALAND INTERNATIONAL AIR RACE

Although the commercial communications channels proved adequate facilities for aircraft communication to ground stations along the route of the recent International Air Race from England to New Zealand, Amateur watches were organised throughout the Commonwealth just in case assistance proved to be necessary for reasons beyond the control of the Department of Air. No emergency occurred where Amateurs were needed, but the typical spirit of the Amateur was shown by those who gave up considerable hours of their private time to maintain watches on the various frequencies from v.h.f. to h.f. on which the aircraft were operating.

### HE'S HERE!

Do you know who's back in Australia? Yes, you're right first guess—Major Bill Mitchell, VK3UM, complete with extra member of the family produced in the U.K.

Apart from a few grey hairs—no doubt caused by worrying about how to catch the elusive English trout—Bill appears to be much as he was when we farewelled him three years ago when he set sail for the U.K. to fulfill a position with the Military Service.

Although Bill won't readily admit it, you can tell by the glint in his eye that he still has the Ham bug in his system and judging by the alacrity with which the call sign 3UM appeared in the "Amendments to Amateur Call Signs" list it won't be long before we hear signals emanating from the Mitchell domocile, which, incidentally, hasn't shifted its foundations since the family went touring around the world.

You don't know who Bill Mitchell is? Well I'll be ———! He was once the Federal Secretary. Welcome home Bill.

— . . . —

## FEDERAL QSL BUREAU

### RAY JONES, VK3RJ, MANAGER

The Radio Society of Ceylon advise that VS7LB, Lloyd Blok, has been appointed QSL Manager for Ceylon with address as Box 907, Colombo. The Society also state that the call sign prefix for Ceylon has been changed to 4S7 as from 15th August, 1953.

George Meaton, VK9GM, advises that he has increased his power to 25 watts with encouraging results. George could take little part in the recent R.D. Contest because of duty. When he did get on he experienced trouble with the tx for the first time. He considers that the points allotment for Norfolk Island needs reviewing. "The geographical position of Norfolk Island makes the points system allocated to the other VK9 areas, a bit cockeyed," says George.

Bill Mitchell, VK3UM, ex-Federal Secretary, seen in the Melbourne streets a few weeks back, shortly after his return from a two-year sojourn in England; looked fit and well. Bill liked the old dart, and acquired a few pieces of equipment for the home station. Also chalked up an addition to the family scoreboard during his period away. Says will be some time before he gets ahead of the jobs on hand and able to return to the bands.

Felix, FK8AC, supplies the name of the operator who recently took up duty at Wallis Island and is active as FW8AB, as Adrien Montjoie. Felix has just come back on the air after 18 months silence, during the greater part of which he was home in France.

According to the deep lamentations contained in a back page paragraph of the VK5 Divisional Notes in October "A.R.," I apparently scooped the local scribe on an item of domestic information. Too bad that the sponsor of my par considers my notes more widely read. I am modest enough to merely claim that my preferrment is solely due to my notes appearing in a section of the magazine rightly placed ahead of Divisional Notes. For this and other reasons would suggest that the VK5 writer overcomes this disability by sending his contributions to a magazine published in the Chinese language. I am not familiar with the circumstances surrounding the acquiring of his "sobriquet," but am charitable enough to think it is because of his love of flowers. His par firstly registers amazement at my temerity in trespassing on his preserves, and then goes on with blandishments, cajolery and finally outright threats in an attempt to intimidate. I will be waiting at the station, wharf, air terminal or saleyards should this character ever (small hope) decide to visit Melbourne again. (Mr. Editor, please insert note closing this correspondence, hi!). Vive Barbier!!!

### JANUARY ISSUE

**This time every year a plea is made to Advertisers and Contributors to forward copy early for the January issue.**

**To explain once again—as the printers close down for annual holidays from just before Xmas until the middle of January, it is necessary, if the magazine is to be posted to you on the 1st of January, for the magazine to be printed before Xmas.**

**Therefore it is requested that material for the January issue must be in the printers' hands by the FIRST OF DECEMBER.**

**Your co-operation in this matter will be much appreciated.**

**—Editor.**

## NEW SOUTH WALES

The September meeting of the N.S.W. Division took place on a cold wet night—who said "Sunny New South Wales." That chappie probably lived before they put up those "layers" above the earth. Our attendance dropped to 82, but apologies received prior to and after the meeting indicates the drop was only a temporary nature.

The lecture by Mr. Alec Little, of the Radio Physics Division (C.S.I.R.O.), was well up to the standard we expect from this Section. The 16 mm. film of the activity on the surface of the sun gave a wonderful picture of the tremendous activity occurring there. It would appear that over the past three years what were at first called "dark stars" are more than likely only "dark" because our telescopes can't see that far—yet. Members will receive a precis of the lecture in their next Bulletin and Council hope to adapt it to tape in the near future. We wish to thank Mr. Little and his assistant, our old friend Charlie Fryor, 2NP, for the enjoyable and instructive night they gave the Division.

The President 2YC reported that the first experimental tape sent out to the South Western Zone in July last had returned to headquarters and all who heard it reported more than favourably on the idea and as a result, more variations of this idea will be in our country zones when you read this. Its continuance will always depend on country members' use of it.

The meeting resolved that a book be started to be known as The Institute Calendar, to contain the dates allocated each year for Institute functions (Federal). Unless agreed to, no two functions to be held on the one date—first allocation to have priority. This year we had three functions—one in Sydney, one in Newcastle and one in Forbes on 4th October.

The first "Short Lecturette" was given by Mr. Bob Black, 2QZ, on V.h.f. B.c.i. It was given within the 15 minutes allotted, and at its conclusion a B.c.i. Committee was formed who will undertake to deal with, on the spot, b.c.i. problems of the VK2 Divisional members. Horrie 2FA, who has had plenty of this b.c.i. trouble, will be Council representative on the Committee.

There was still time to ragchew and as usual, members were "put out" at 11 p.m. and as it was raining, our footpath "after meeting" had to be abandoned. We hope our visitors, VK4CC and VK3APD enjoyed their W.I.A. meeting in VK2.

### WESTERN SUBURBS

A little European DX on 20 mx late at night has been bringing out the hounds, certain numbers of which seem to belong to the wolf species when VS1AA (Joan) comes on. 2AGG has not been heard for some time now, so what about a bit of signal Alec. 2HX heard working VS6BE; doesn't seem to work anyone else, these days. The Night Owls Net have some Western Suburbs members, 2ACD being one. Mick 2ARF on 20 mx only because of b.c.i., but he now has a No. 4 rx, so we may hear him on 7 and 14 Mc. soon. Alan 9YY, ex-2AIR of Enfield, is having a great time according to his last letter; he has been in VK9 a year now and says time has passed very quickly.

A new one, Alan 2AOI of Concord, is fairly active on 20 and 40 mx these days running about 30w. Another new one, 2AIJ of Enfield is not on yet, but has hopes. 2ARQ of Haberfield doing a good job on 40 mx. Nev 2APL heard on phone and c.w. chasing DX. Ken 2AXZ heard seldom, but appears to be playing with cameras a lot; building mobile gear, has been seen with 5763s. 2QC has also succumbed to this photo bug, but let a signal appear on 10 mx and he would be there with ears flapping. Harry 2AHP not heard for a long time, working KAs. Alan 2AMY now has a v.f.o. which he probably finds a great asset over the xtal. Bob 2AHF not active at all, waiting for the sunspots, but what about a signal on 20 or 40 mx? Ted 2ABO hasn't been the best but is back again on the air; hope you continue on the up-grade. Beams seem to be catching, like measles, myself being the latest addict.

Well, that's all for now chaps. Please send any news and scandal to me at 33 Flavelle St., Concord, or over the air.—Barry 2AAB.

### NORTH COAST AND TABLELANDS ZONE

Tamworth seems to be an area where Hams are also Ham builders, for both Merv 2ATD and Noel 2ASQ have their XYL's pressing their noses to the hammer and paint brush respectively in their ardour to become established in their new homes. Two new ones are welcomed to the Zone in the persons of 2ABP and 2ABT, both of Tamworth. Whilst I have not heard them about as yet, I do extend an invitation to join the North Coast hook-up on 80 mx each Thursday evening about 8.30-9 p.m.

Things are very quiet at Narrabri, Hart 2VC being heard now and then on 80 mx, whilst Chick 2DK has other interests at present. From Inverell, I hear of model aero clubs with Reg 2ATN, Ron 2UN and Ted 2ATS well in the fore, so much so that Ham Radio has left the air to these guided missiles. Taree Bill has been gadding about again and was last seen somewhere up in Queensland. Rumour has it that the portable he had with him was not for QSO's, but so the boys could D/F him when he got lost! Port Macquarie and Wauchope areas seem very quiet as no signals appear to be emanating at the present time, with the exception of 2PA and 2AWS on 40 mx.

In Kempsey, Noel 2AHH is enjoying a multitude of DX contacts on his new 3 el. beam. In fact, he has had to put on a second op. to keep the queue in order, hi! The DX king of Macksville is also putting good sigs on 20 and the DX can be heard replying to Ted's calls. Things are fairly quiet on the Raleigh/Coff's Harbour area, but bursts can be heard from Crieff 2XO on most bands with some good DX too. Ken 2APB seems to be the only one active at Coff's and it does appear that Ken will soon be transferred to the big smoke.

Since our meeting in Casino on 22nd August with the President, Jim Corbin, there has been some increase in activity on the Far North Coast. Most of us now have a clear picture of the inner workings of the N.S.W. Division.

The initial picnic day was held at Brunswick Heads on Sunday, 27th Sept. Weather conditions were not particularly favourable which, no doubt, kept away the majority of those expected. Clive 2AGM provided entertainment for the company, particularly the ladies, with his small craft fitted with out-board motor. Even the children cried for more trips on the river. Thanks to the tree climbing efforts of "Blue" 2AEU, we managed to get the portable tx working and had one contact with a VK4. Unfortunately, due to antennae problems the pre-arranged sked with 2WI at 11.15 did not take place, we had not at that time tied up with the versatile "Blue." We parted company at 5 p.m. with the same question on the lips of all—"when do we meet again?"

There is a story current that Charlie 2ADE gave away, in a moment of generosity or despair, his first tank condenser. That multi-band tank certainly worked too. So well did it work that 2ZY, when he saw it, decided that he must also have one. It's on the drawing board at present. Bill also collected a substantial score in the R.D. Contest, created a record for this group. He, of course, is rather younger than most of us. We don't hear much of Fred 2APY, from Stokers' Siding, but he expects to be the proud possessor of an Eddystone rx shortly.

The Lismore gang are mainly represented by 2LH on 3.5 Mc. with occasional bursts from 2UC. Alf 2UC is at present spending three months in Murwillumbah and expects to have a Type 3 operating shortly. Graham 2FN operates on 14 Mc. when he is not struggling with the design of v.t. voltmeters. There is a great opening in Lismore for anyone who can cure power leaks—he will make a fortune. Possibly "Blue" 2AEU will have a solution when he gets back on the air. From Kyogle, we hear 2LR quite regularly on 3.5 Mc. and occasionally 2ASO. Some renewed activity is to be expected from Byron Bay now Bob 2AFP has moved into his new home. No doubt he will encourage Clive 2AGM to crank up his tx a little more often. The zone hook-up on 80 mx each Thursday night has been quite active; let us hope it will continue.

## WOY WOY FIELD DAY

### Sunday, 15th November

Final arrangements for the N.S.W. Division's Woy Woy Field Day include entertainment that should suit all-comers. The day is conducted annually by the Division with the co-operation of the Hunter Branch and local Amateurs. It is the one occasion during the year when at a central point, Amateurs from the Hunter Branch and the country meet the Sydney gang.

Attendances on the last two occasions have exceeded the 200 mark, and judging from early enquiries, this year's event should be well supported.

Assembly will be between 10.30 and 11 a.m., the venue the Masonic Hall, Woy Woy. No prior booking is required, just come along, bring your family and friends. If you can indicate your intention of attending it would assist the organisers. Please contact the Secretary, Dud Millen, 2LQ, or Cess Hardman, 2KR, of Woy Woy.

The morning session will commence at 11 a.m. with competitions. For Amateurs with mobile or portable equipment, the "All Band Scramble" will be run from 11.45 a.m. to 12.30 p.m. Lunch period will be 1 to 2 p.m.

At 2 p.m. searchers will leave to locate the hidden tx on 144 Mc. Transmissions will cease at 3.15 p.m.

During the afternoon special competitions will be conducted for the ladies and sporting events for the kiddies.

From 4 p.m. to 5 p.m. presentation of prizes and general re-union.

**Don't forget the date, 15th November. Make Woy Woy the terminal for your Sunday excursion. Show the YF there are other aspects of Amateur Radio besides heaps of equipment and long sessions in the shack!**

### CANBERRA NEWS

On 5th and 6th Sept. Canberra had a visit from Divisional President 2YC. Jim was shown around the city by 2AIL, finishing up at 2GU's shack on Mugga Way. Sunday afternoon Jim was invited over to the local Canberra Radio Club at Riverside. Present to greet him were two visitors from Yass, 2DO and 2ALS, and two from Goulburn, 2BO and 2OY. Locals were 2ANR, 2PM, 2PI, 2ASB, 2AIL, 2AVP, 2JG, Joe Marshall, Bob Clark, Ray Fraser and Lee Sparks. Jim had brought along a tape recording on 2 mx equipment which was appreciated by all. Discussion ensued on proposals for increasing aid to country members of the W.I.A., many interesting suggestions being put forward. Later a hamfest (in buffet style) was held at Ron 2PM's where Jim conducted his campaign for increased membership in the W.I.A. Final figures are not yet to hand, but the results are promising. The only casualty of the campaign was Jim himself who had perhaps eaten not wisely but too well! Anyway, the gang at Canberra are eagerly awaiting a further visit by the President.

### HUNTER BRANCH

The September meeting of the Hunter Branch of the W.I.A. was held on Friday, 11/9/53 at 8 p.m. at Tighes Hill Technical College with 19 members present including Ron 5LF and "Taree Bill" 2AEY. President John 2DZ was in the chair. The lecture for the night was given by Ron 5LF.

On Wednesday night 23/9/53 Phil 2TX gave another illustrated lecture on his trip overseas to an assembly of 84 Hams, YLs and XYLs. Visitors present included Mr. C. E. Collins, President of Automotive Institute; Mr. K. Greenhalgh, Chief Engineer 2KO; and Mr. F. Hinks, Assistant Radio Inspector.

The Hunter Branch Field Night was held on 3rd October at No. 1 Sports Ground. The hidden tx hunt was the main event of the night, the frequencies used being 3.5 and 144 Mc. The tx was hidden within three miles of the Sports Ground. Jeff 2VU and party were the discoverers of the tx which was located in dense bush 200 yards from the road. Jeff took one hour to find the tx and travelled 30 miles around Newcastle suburbs before getting definite cross bearings. After all other participants returned to base various competitions and quizzes were held, the results being "Reading C.W. Through QRM," won by K. Greenhalgh, 2KG; "Quiz from last six issues of 'A.R.'," won by Jack 2ADT; "Estimating Capacitances of Two Condensers," won by Dave 2BZ; "Most Useful Gadget," won by Ken 2KG. Among those present were Ron 2ASJ, Bill 2AXM, Doug 2ASA and party from Wyong; John 2DZ and Pat

Lobegier; Radio Inspector, and Frank Hinks, Assistant Radio Inspector.

The following day, Sunday, 4/10/53, a social picnic day was held at Blackalls Park, the attendance being 74 adults and children. The programme consisted of social and sporting activities including children's races, ladies' races, men's races, tug-o-war, ball throwing competitions and a Radio Inspector's race, which resulted in Pat the R.I., beating Frank the A.R.I. by a short head. Joyce Whyte, XYL of 2AHA carried off most of the ladies' prizes by winning one for racing and two for throwing the ball. Very welcome visitors to the picnic were Dave 2EO and wife, Don 2ASW, Ern 2AL, Ken 2AXZ, and Barry 2AAB. During the day the children were liberally supplied with sweets, soft drinks and ice cream and all agreed that it was a very successful day.

Bill 2XT has his 5 over 5 over 5 erected and in operation on 144 Mc. and is very pleased with results. Leo 2QB expects to have his 100w. rig in operation in the near future. Ron 2ASJ and his 2nd op., Syd Daniels, have had a holiday at Urunga and visited Crieff 2XO while there. Frank Stubbs, associate, still an inmate of 113th A.G.H. Concord. We all hope you're well again soon, Frank. Norm 2ANA will have little time for QSOs until his daughter recovers from a very bad accident. Charlie 2ARV is now active on 7 Mc., having shifted his QTH from Wyong to Newcastle. Welcome to the Hunter Branch, Charles. Lionel 2CS will, by now, be established at his new QTH on the Charlestown Hill, so we expect S9 signals from that location. Varley 2SF very quiet on the bands these days due to pressure of business.

The next meeting of the Hunter Branch will be held at Tighes Hill Technical College on 13/11/53 at 8 p.m. The lecturer for the night will be Bob Winch.

### SOUTH WESTERN ZONE

Most of the chaps in this Zone who are active have been heard on the different bands lately, so will not comment on individual call signs. The committee members of the South Western Zone Convention met at Wagga on 6th September to arrange a programme; those present were 2PN Tumut, 2BW Wagga, 2RS and 2EW Albury, 2PL and Assoc. Ted Prewitt, from Griffith, and 2AJO Coolamon. The boys are really keen on the Convention as one can see by the distances travelled by the committee to Wagga. A programme was drawn up and by the time this is read, other zones should have received programmes and the Convention will not be far off. We have some very good trophies that have been donated, and the chaps in this zone are already cleaning the dust off the portable gear to try and keep these prizes in the zone. Here's hoping blokes.

We hope to see a good gathering at the Convention on 31st October and 1st November, when we hope to renew old acquaintances and meet those personally whom so far we have only heard by voice. STOP PRESS! Stewart 2PL proud father of new daughter.—2AJO.

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## VICTORIA

The October meeting was held on 7/10/53 at the M.T.C. The attendance was the best for quite some time, I counted 80 and think I missed a few. The agenda item, "Hints and Kinks," was very well received and the following gentlemen came forth with their ideas: Harry Chapman, Fred Bail, Max Hull, George Manning, Len Jackson, Jim Bail, George Glover, Jack Duncan and Syd Clarke. Possibly some of their hints will be used to fill the odd corners of "A.R." from time to time.

### ANNUAL DINNER

I must hasten to correct an error in last month's notes. The Dinner is to be held on 14th November at the Silver Gate Hotel, South Melbourne, and the subscription is £1. Only a limited number can be accommodated, so book early.

### NEW MEMBERS

Membership received quite a boost this month with two full members, namely F. Atkins, VK3AFE, and W. J. Falkiner, VK3AWE, and Associate members: G. P. McKenna, Brian Forbes and Ken Rogers. A hearty welcome to these chaps and may you all take an active interest in your Institute. To the associate members, go to it and get that ticket.

### TRANSMITTER HUNT

It appears that a transmitter cannot be so hidden that the boys won't find it. On the last occasion the tx was buried under three feet of sand at South Clayton. A length of co-ax went from the tx, under a 20 ft. stretch of water, thence to a 66 ft. length of 32 gauge wire. It took 1¾ hours to set the gear up, and the first two in found the thing (much to Col's disgust) in one hour.

The results: Dead heat for first between Jack Duncan and Bob Hall, third Eric Beauman, fourth 3AMN/3ES as a team. About twenty cars, twelve of which were fitted with d.f. gear left the assembly point.

The next hunt is scheduled for 15th November, the assembly point being **College Parade, Carlton.** This location is at the top of Swanston Street, near the University, and is considered to be a quieter area than the Flagstaff Gardens.

3LN apparently had prior knowledge that the tx was in a hole, he went out with an assortment of gear, found 18 holes but all they held was a little white ball. 3AMT, another newcomer to the bands. Don't let the enthusiasm die Allen. Mrs. 3TX finds the shack the ideal place to dry the washing. Is that with the filaments on or off Bill?

As expected, my backstop didn't let me down, in fact he provided the star turn of the month. Harold, for some unknown reason, washed the XYL's car, after first covering the spare engine in the boot with hessian. Unfortunately, he forgot to remove it when the job was finished. The gentlemen in the brass helmets extinguished the fire, but the XYL will be carless for a while.

3IK burnt out the modulator power supply, but despite definite vows not to replace it, Ian was back the next week with everything working. Bet you bought it out of the tram fares you're going to save!

A programme has been drawn up for the rest of the year and is as follows—November: A group of Lecturettes by the V.h.f. Group; December: Films; February: Radio Servicing, by an instructor from M.T.C.; March: Tender Night; April: Annual General Meeting. If any change has to be made to this programme, due notice will be published in this column.

### STATE CONVENTION

Don't forget the State Convention to be held at Benalla on 28th and 29th of November. The boys in the zone assure that a good programme has been arranged. Load up your mobile gear and go along.

How the prodigal sons are returning. The latest being Bill Mitchell, 3UM, and John Tutton, 3ZC. Both showed up at the October meeting. The President gave them a hearty welcome home and expressed the hope they will again take an active interest in the affairs of W.I.A.

Talking of Presidents, did you know that 5PS thought the discussion about 288 was a reference to his waist line. The 7193s the VK5 gang gave him were a peace offering. Anyhow, I for one will turn the beam on VK5 this summer and ignore his CQs just for the hell of it.

3ZS and company made a good showing on a recent half hour broadcast programme, then to cap things properly, the A.B.C. news service covered the last tx hunt. W.I.A. is now getting a little publicity, and yours truly is surprised at the number of people not interested in Amateur Radio, who took notice of both broadcasts.

Last but not least, the good news about Tom 3HX. Tom is making good progress and has been out of bed. He will be pleased to see anybody who has half an hour to spare. He is in Ward 5 West at Prince Henry's Hospital.

### CENTRAL WESTERN ZONE CONVENTION

**Stawell, 27th September**

Fortunately the weather was kind to us, the one really good day in the midst of quite a string of bleak wintery ones. By 1200 hours a nice crowd, about 30 in all, had gathered outside 3AKW's premises and so terrific was the rag chew that no one noticed that the call for lunch was about three-quarters of an hour late. The lunch then became the first unofficial scramble—and how! In no time lunch was all over and everybody congregated outside the rendezvous in the warm sunlight whilst last minute adjustments were made to the mobile rigs in preparation for the mighty scramble on 40 mx. Watches were synchronised, spare bods climbed aboard and on the OK from Bill 3AKW, all five vehicles shot off with a mighty roar, very closely resembling the start of a certain reliability trial. The operators participating were 3ACN, 3IB, 3ATR, 3AGD and 3AFO, plus many second, third and fourth ops.

Meanwhile Roy 3ND and Jim 3SV were atop the highest point around Stawell with 2 mx beam and gear scanning all points of the compass. Next Convention our intention is to inform all v.h.f. groups of our Convention date and hope to work some long distance 2 mx.

To proceed with the "Scramble," the hour soon elapsed and one highly elated and four rather dejected parties returned to base. John 3AGD had reason to be happy in the service because he had logged nine stations including one Interstate, therefore becoming an outright winner.

After a brief pause in which many odd sizes and shapes of loops were brought out, dusted and tenderly connected to the rx, all were briefed by Bill 3AKW on times, etc., re the turn of the day, namely the Hidden Tx Hunt. Byron 3TA had already made off with thatthere box of gremlins (which does persist in giving me nightmares still) to hide it in some QTH somewhere. On 3AKW's OK, away we all went. About half past the hour, 3AGD with 3AKR spotted 3AFO heading for Ararat. 3AFO claimed the signals to be very strong and not decreasing as he went further away from Stawell. Just a slight error in mistaking the Hidden Tx for his own electric fuel pump. Not unlike in signals either! The infernal machine was located in the local rubbish tip under some old boots and tin cans by 3AGD with navigator 3AKR and bomb-aimer 3DP. 3ATR was just a few seconds behind. Charlie 3IB started f.b., but lost track of the signal early in the piece on top of a hill under a shady tree—with his YL! Anyhow, congrats to John 3AGD for a double on the day, i.e. Portable Scramble and Hidden Tx Hunt.

After more rag chews interspersed with tea, we all migrated to base and the Annual Meeting. Office-bearers nominated for the next twelve months were: President, 3TA; Vice-Presidents, 3ND and 3AKW; Secretary, 3AFO. Quite a lively meeting followed with emphasis on the R.D. Contest. Namely the method of the present system of allotting points and means of improving same. 3AFO was awarded the best zone hook-up attendance prize, which was closely contested by 3DP and 3ATR. The meeting then closed and two very informative films were screened. The first on Radar and the second on F.M. In this case, I would like to thank 3TA and 3ATR for their efforts in making such an enjoyable programme possible.

After the films a delightful supper was provided by Mrs. Kinsella, Carmel and Bill who must have put a terrific amount of work into making such a f.b. spread and our thanks go to you all.

We regretted that 3NN and 3RR were unable to attend because of illness, but both are on the road to recovery now, so all is well. Very pleased to see Lin 3ARL looking so well after his illness which prevented him from being present at last year's Convention.

It was very late at night or very early in the morning that we eventually made our way home, full of happy thoughts of the friends we had met and looking forward again for the next Zone Convention. By the way chaps, do not forget to keep the 6th and 7th November clear. It's the South Western Zone Convention to be held at Colac. So until next Wednesday night at 1930 hours, end of 80 mx, cheers, 73.

### SOUTH WESTERN ZONE

Zone Convention on 7th and 8th November at Colac arrangements are now complete and in-

clude a dinner, short meeting, tx hunts, scramble and movies. Listen to 3WI for programme, so bring along mobile and portable gear. 3AKC and 3AGV are in charge of the organisation. Well chaps, it's up to you.

Gordon 3AGV has passed the one thousandth contact with Skene 2SS; well done, it must take some doing. The zone has lost 3NV for the time being, having gone back to his home QTH at Bathurst and is now operating under 2AGN, his old call. 3AGD and gang scooped the pool at the Central Western Convention at Stawell, don't worry John is handicapped for Colac. Jack 3AKC has built the hidden tx and says it will not speak to John's rx. Somebody else may now have a chance.

3TW has built himself a Clapp v.f.o. with a 6V6, now sits on the hook-up frequency on 3600 Kc. on Sundays at 1000 hours; still having good numbers turn up too. 3EQ on recently on 40 mx, thought he had given radio away. John Adams sat for his c.w. last exam, good luck John. 3ALG, the only Geelong chap heard here on the hook-up and a mighty fine sig Fred. How about some of you city chaps coming to the Convention and meet some of your country cousins; just a nice trip from the big smoke.

### NORTH-EASTERN ZONE

Alan 3SQ and Doug 3IJ have their new rigs on the air now, while Chas 3ACW is still having success with that history. Syd 3CI has quite an attractive selection of beam antennae in his yard now; Jim 3JK would be the best man to ask about that 20 mx gremlin OM.

Although no close studying has been done, the provincial news-sheet has not given off anything of Murray 3HZ, neither was Peter 3APF referred to in the Square Dancing. Alex 3AT and Les 3ALE must be re-building or studying as they are like Johnny 3ACK, and have not been heard of lately. Rex 3UR has been the one to keep our routine zone "skeds" lately on 80 mx, while Des 3CO has been heard about his own interests on 40 mx. Alan 3UI is building a new shack, and Keith 3JC has been away in VK2 on holidays. Stan 3AGT put in a welcome appearance on the last zone hook-up with 20w. final input. Hugh 3AHF has been getting about and looking over a well known local institution, amongst other things, and Col 3WQ is in a spot of trouble with a Type "S" power supply. Jack 3PF is a bit short of time for Ham Radio just at the present moment.

3YV was reported on 80 mx the other day working with Ken 3KR and Henry 3HP. Have not had any direct or indirect contact with Tom 3TS or George 3GD and nobody has reported hearing Frank 3ZU lately, which leaves Gordon 3XU, Vic 3ABX, and Des 3BP yet to be accounted for. Must also rustle round and track down the various Associates, like Ken McInnes and Jim Harrington, as soon as opportunity offers.

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## QUEENSLAND

September meeting showed some improvement in the attendance, showing some, at least, have the interests of our organisation at heart. Even Gordon 4GH, from Maryborough, was along. Also Arthur 4AW was with us and gave a lengthy discourse on civil defence and the plans in hand to promote same here in VK4. He made a strong appeal to the v.h.f. boys to help tie the job up.

The VK4 Intrastate Shield was on display and by the number who have nominated the place for their call sign, seem as if it's going to be a lively competition from now on.

A Dutch auction is the order of the day for our November meeting, so all of you with surplus gear, bring it and yourselves along to make a good night of it, thereby swelling our funds and maybe acquiring that piece of gear you have been looking for.

As some members seem to think Council is being conducted on the lines of a secret society, members are invited along to attend these meetings as observers and see how this body handles the affairs of the Institute. We of the Council would like to see all members from time to time avail themselves of this opportunity. Then you could praise the Council or otherwise at the general meetings.

Council has discussed plans for a Christmas Party for members, their family and friends. This is to be held in a hall, to be chosen, with possibly a Xmas Tree where we could hang a present for the young hopefuls and a "Santa" in attendance. It has been suggested that members and their wives supply supper in the form of cakes, sandwiches and what have you, the Institute supplying tea, drinks and those eatables so dear to the little boys and girls. Entertainment to be a few musical and comedy items, interspersed with dancing of the square and other variety. All members will have to get behind Council in this, otherwise it could prove as big a fiasco as least year's Xmas do, and we don't want that, so your support please.

The Secretary informs me badges are available and outstanding membership certificates are being forwarded. So don't panic him boys, give him time.

The get-together at Ipswich proved very popular both in the amount of gear that was brought along and the numbers who came. It was a bit slow in starting, but after things got under way, everyone was determined to enjoy himself. Some good contacts were made by the portables, and to date of writing this, the ultimate winner will have to be decided by the Contest Committee owing to different interpretation of the rules. So to all of you who have protested to me on the part of some of the contestants, it will be seen into.

Another day is anticipated maybe around November or December with hard and fast rules. A few donations are on hand for prizes in the sporting events, meaning those with no portables, but with some athletic aspirations, may be able to collect a prize. Thanks must go to the Ipswich boys for the organising of the socialities up there and making the day a success.

While on Ipswich, my spy informs me conditions up that way on the higher frequencies have been very good with Jack 4SF getting himself some new countries on phone, and Harold 4HG putting himself up a 14-28 Mc. beam to get among them; wot no 21 Mc. Harold? While waiting for the DX to break through the boys there have a round table rag chew most nights around 7.30, which keeps them in touch and gives my spy an opportunity to find out what's doing. Brisbane boys please note.

Conditions here in Brisbane have been very good after 9 p.m. and DX has been available on 7 and 14 Mc. In the c.w. end 4RJ, and 4SD have been the most consistent, and 4DE and 4WH of Townsville have been heard getting amongst them. 4TN and 4YA are the only phone boys heard regularly here, with 4OE occasionally putting in a strong sig. As for the others, I think they must be doing a lot of eaves-dropping as they know what's going on, but one never hears their signal.

### NORTHERN NOTES from VK4EL

Harry 4XH has been very active on 21 Mc. and gets some nice DX at times, also worked a wee bit on 14 Mc. 4JH almost ready to go

with a nice new antenna farm, also a band switched rig to go with it; good luck Joe. 4FA also just about ready to make a come back, but awaiting a mike, what about using the key while you're waiting? 4DB very busy finishing a new tx and planning a super dooper antenna after the Lazy H type; Doug has just finished a very hot rx. Harry 4HV has been getting among them as seen by the number of DX cards coming to hand; is contemplating putting up the T2FD antenna in the near future.

Great snakes alive! Heard Eddie 4WH in a three-way phone QSO recently with Harry 4HV and Bob 4RW, talking about beams, etc.; seems he has given the G8PO away and is making a new 3 element type. 4EJ building a new converter, a very special job using two 6J6s, and supposed to have terrific sig-to-noise ratio, will have it perking soon. Harry 4ZP fairly active on 7, 14 and 21 Mc., but can be heard daily in the early a.m. having a 3-way 7 Mc. QSO with old-timer Andy 4BW and Vic 4BJ; Harry says the garden keeps him out of the shack!

Kev 4OR recently returned from a holiday at Morobe Station where he regularly contacted 4EL on 7 Mc. phone with his portable 10w. job, sounded like his regular home tx, was always S9 here at Clevedon. Geoff 9GW concentrating on 21 Mc. and a recent list of his stations worked reads like a new edition of the call book; that 8JK rotary sure works, even if the niggers call it big feller canoe upside down, hi! 4EL, well your scribe is still on all bands when time permits, both on phone and c.w., mainly concentrate on 21 Mc., where at last I have made my 21 Mc. W.A.C. and on phone too. Have a multi-band Lazy H under test and so far results have exceeded expectations.

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## SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division was held in the clubrooms to a capacity gathering of members, 130 members and visitors to be exact, and the guest speaker for the evening was Mr. Rob Gurr (ex-VK1RG-VK5RG), who entertained those present with a bright and breezy talk on his experiences whilst stationed on Macquarie Island. As is usual with these modest and unassuming heroes from the Antarctic wastes, ahem!, Rob tried to give us all the impression that he was terribly nervous and would in all probability make a mess of the lecture, but as is always the case, he was a huge success and his down to earth manner of giving his talk won his audience from the start.

The film that was screened at the conclusion of the talk, together with Rob's running commentary, rounded off a very interesting and instructive lecture, and the enthusiastic applause that greeted the vote of thanks proposed by Dave 5DH was a definite indication of just how much the members present had enjoyed the entire lecture. Quite a number of interesting questions were asked by the members, and the President with his usual keen grasp of all things technical, asked the most important question, to wit, "When will you be handing out the QSL cards to all those whom you contacted from Macquarie?" This question was greeted with enthusiasm by all of the lucky ones present, and to a greater degree when Rob answered, "Tonight." The President resumed his seat with a contented look on what passes for his face, and for the rest of the evening just sat in a daze firmly clasping his new VK1RG QSL card.

There was quite an International air about the meeting, with visitors from all parts of the Amateur world. George Froehlich (SP1RG), Pat O'Connor (G3HQY, now VK5US), and Leo Rand (W2JAC), just to give a few of the visitors from overseas, to say nothing of "Mac" 5CE, Ann Caldicott (2nd op. of 2DA), Geoff Reed (whose sole claim to fame was that he was a nephew of Doc 5MD), Hughie Lloyd (5BC) and Fred Martens (5MA) from up the river, and last but not least, Mr. George Barber (ex-VK5MV) who represented the I.R.E. at the meeting; he is the South Australian President of that august body and in daily life, my boss, to wit Chief Engineer of the best broadcasting station in the State. Loud cheers, a couple of atom bomb explosions, a hydrogen bomb explosion, a ten gun salute, and an awesome silence as his importance dawns upon the reader!!

Opportunity was taken at the meeting to say farewell to associate member Jim Milway who is leaving VK5 to settle in VK7. He leaves the local Electricity Trust to join the Hydro-Electric, and the President also pointed out to members that now that the VK5 Division is an incorporated body, there are several alterations to the constitution which concerned them, and then proceeded to read the alterations in his well modulated and charming voice. The principal one being to the fact that whereas in the old constitution, a member just did not renew his subscription and after a lapse of time he was written off the books, but from now on the onus to submit his resignation to his Division is on the member, otherwise he is liable for his subscription. A copy of the new constitution will be forwarded to all future new members and if any present member requires a copy he may obtain one upon payment of 1/6 to the Treasurer, being the cost of printing same.

Joe 5JO, at the invitation of the President, also addressed the members on the proposed picnic at the Gorge Picnic Grounds, and after the intense enthusiasm among the members died down slightly, two or three of them had to have water thrown over them to revive them, it was decided to form a committee to handle the picnic and report back to the next meeting. It goes without saying that the usual willing horses were recruited and once this was done most of the members started to take an interest in the whole thing, and I think that it should be a success. Anyway, more next month after the committee has met and whipped things into shape.

It was quite unusual to have a young lady at the meeting, and Ann, who is the daughter of Harry 2DA, seemed to enjoy the evening's entertainment. She was visiting Doc 5MD at the time and evidently expressed a desire to see the President of the leading Division in action! In a conversation with the VK5 scribe after the meeting, she said that although she was not very familiar with the meetings of the VK2 Division, she felt sure that they could not show us anything, and what's more, she just doted on Presidents with grey hair!! Ahem!! You know you said that Ann, now didn't you? Oh boy! Will Doc bite his finger nails to the elbow when he reads this. Jokes aside Ann, it was a pleasure to have you at the meeting and hope to see you again some day.

In my long and painful association with the science of radio, I have at various times attempted to construct a simple crystal set which would function with the terrific success that is claimed for them by all those who have built the little so and so's. However, I have never had the slightest success and I feel sure that the reason for my possessing such an inferiority complex, which is the real reason for my being so shy and modest, is nothing more than my recognition of my failure. This month, however, I have nosed out the fact that Ross 5LW and Launce 5LD have been trying their hardest to get a crystal set to function as it should, and have both reached the stage where they are waking up at night to find themselves on their hands and knees turning the bedroom door knob and listening for the signal that is not there. Now you know why Ross is shy and modest like the violet!!

Reg 5RR, our genial Secretary, now has the telephone on at his QTH and would welcome all enquiries concerning the VK5 Division on that line instead of at his place of employment. Reg himself does not mind being rung at his business address, but as he is the Secretary of the Company he finds that calls sometimes arrive for him at embarrassing moments. Your indulgence is craved gentlemen.

### PORT LINCOLN AREA

5DF has been holidaying in the city of virtue (VK3 and VK4 scribes please note) and has also been making new friends in Renmark, Murray Bridge, and Mildura. Wally is going home from his holiday all fired with enthusiasm and will be into the building of his final with renewed vigor. He has been using the v.f.o. on 40 mx with about 10w. for some time, but he now thinks that he is fit enough to overcome the hoodoo of "gardening before gear."

5NJ is no longer at the local broadcasting station, but has set himself up in the radio business, and Jack has now promised to appear on the Amateur bands at least regularly on Sunday mornings. His new beam looks the job. He is expecting to have his new sooperdooper 2 mx tx finished by Xmas. For further information on this controversial subject, please turn to the VK5 V.h.f. Notes written by a character named Shylock Bowen (rude noises and sounds of derision). Associate member Don Brasher has been busy building a 2 mx rx (good heavens, there I go again), the reason being that he wants to listen in on the local boys. 5LT is at the moment decidedly inactive due to house moving, but the urge is still there and as soon as Pat is settled in somewhere he will be into it again.

I have to date received no further news from the Woomera Radio Club and this might well be the effect on them after receiving such a call sign as VK5WC!! It was my intention to comment at some length upon this unique call together with some technical suggestions as to types of QSL cards suitable for the call. However, a member of the VK5 Council, suspecting that some such intention lurked behind my innocent magenta-orange eyes, has taken upon himself to warn me as to the danger of such a course. He said, "Always remember that such comment might set off a chain reaction which could only cause me to flush with shame, to say nothing of the effect that it would have on the members' cistern," I beg your pardon, I meant system. The seat of the trouble seems to be that it will not be what I say, but just how I say it, therefore in view of the rather doubtful types of minds that apparently are in the habit of reading my notes, I do not intend to comment in any way on the call of VK5WC, and those of you who expected some detour along a road that was unclean may now sit at ease and read this paragraph in peace and quiet.

After reading last month's Editorial of the magazine I am afraid that I am in the unfortunate position of being forced to agree with one or two of the VK5 members who now advocate that I should hand over the belt that I hold for "padding" to one who apparently could give me fifty yards start in a hundred and beat me easily. This comment might sound a little harsh but for the fact that the Editorial of any publication usually sets the standard for the contents which follow and I am led to believe that more than one of my type is enough in any magazine, and then only on the last page. All of which prompts me to ask, in view of the one or two obvious "boners" that have been pulled in the Editorial recently, "Do Federal Executive have to write every Editorial?" It naturally stands that this paragraph is written in a tone of constructive criticism, otherwise it would appear in "Letters to the Editor!" [Divisions have been requested to supply guest Editorials for more than a year by F.E.—Editor.]

### SOUTH EAST AREA

5TW is at present on holidays in Adelaide but as yet Tom has not been sighted. It goes without saying that his activities on the air are nil. 5CH has returned to work after his spell in hospital but as yet Claude has not been heard on the air; hope you are feeling 100 per cent. OM. 5JA, despite my constant reference to all sorts of reasons for his continued absence from the air, is still in the land of the missing. John definitely has me worried now. 5KU has been re-building his audio equipment and Erg is more than pleased with the results. Just as well I suppose, because the gliding season will soon be well to the fore. 5FD is also one who reports very little activity this month although I don't think that John will be very long inactive. 5MS has been heard quite often on 20 and 40 mx and Stuart has just purchased a "posh" new v.f.o., but as yet his comments on it have not seen the light of day. If it is the same as the ones that have appeared in Adelaide recently, Stuart, then I think that you will be more than pleased.

5CJ has been heard at times on 40 mx and is very pleased to note that the band is at last taking a turn for the better, it enables him to keep his skeds for a change. Associate member Jack Fowler is another one who is out of the hospital and reports that his eye is definitely improving, a burst retina muscle was the cause of the trouble, and he hopes to return to work before long; nice work Jack, pleased to hear that all is well.

I am cut to the quick, no kidding. In the Division that once had the honour to have me for its President, if only for a day, I believe that the local press printed on page three of its paper, word for word from the VK5 notes, and not a soul thought to send its beloved President even a single copy of the paper and left it to the VK3 scribe to sneeringly pass on the news to his hated President. I repeat, I am cut to the quick, just think of how I could have crowed over my loyal(?) fellow Council members, just think of how green with envy would have been my staunch enemy Doc 5MD. Base ingratitude thy name is VK3!!

### UPPER MURRAY AREA

Due to the fact that there appears to have been a general exodus of the boys from this area this month, 5BC and 5MA in Adelaide, 5CF in Melbourne, and 5RE in both of these States, to say nothing of the associate member and his wife in Adelaide, it therefore goes without saying that the remaining boys decided in quick time that a monthly meeting would not be held and it was therefore adjourned until next month when Alex 5XO will be the host. 5MA, in addition to attending the monthly meeting in the city, also visited Clare and surrounding district. Both Fred and Lance 5XL called on Tim 5TJ one night and exchanged greetings with Tom 5TL in Renmark. 5BC was another welcome visitor to the monthly meeting and Hughie was seen several times whizzing through the city evidently pleasure bent. 5XO has been heard on 7 Mc. c.w. at nights and Alex is working W stations with considerable ease on his Type 3.

5KW has been making a double perversion, I'm sorry, a double conversion rx and Harry proposes to make the second osc. xtal controlled. He has acquired a suitable rock which needs a little crystal gazing to get it to the required frequency. 5CF was last heard of in VK3 and therefore no news of Murray is available for the moment. 5RE has been on the move this

month and was a visitor to the b.b.s.s. one evening and Hurtle and I had a long chat about things in general. I tried to get some scandal about the local gang, but he has had too much experience in saying nothing about a lot of things for me to get anything out of him. 5TL my local correspondent for the district appears to be having a few contacts on 7 Mc. and it was quite a pleasure for Tom to have another contact with Hal 5WI the other Sunday after such a lapse of time, due to conditions. Tom is under medical orders to get out more in the sun and can be seen almost in the "nood" these days doing his weeding, etc. Knowing just what a good gardener he is, I feel that the cure is worse than the complaint!

The b.b.s.s. recently scooped an interview with some chaps who were rescued from their fishing boat that was drifting around the VK2 area and were brought to VK5 by the ship that picked them up. In the course of the interview one of the chaps said that as they were short of water he remembered that water was always put in batteries and therefore they could drink this if it came to a pinch. He said that after smelling the water in the batteries he did not like the smell very much and they all decided that they would give it a miss. Just as well that their sense of smell was functioning!!

To an anxiously awaiting VK5 community, I am pleased to be able to announce the latest results in the crystal set making contest at present taking place in VK5. Launce 5LD has at least succeeded in faintly hearing three separate stations, and Ross 5LW has heard four faintly and all mixed up together. Without doubt, this unfortunate result cannot be accepted by the judges for decision and the two competitors have been asked to carry their experiments to a sounder conclusion. Launce is definitely showing the signs of the terrible strain of the contest and in an exclusive interview with the representative of this magazine said that if all other avenues are exhausted he will resort to using a coherer that he has in his hope chest in the spare room. Ross declined an interview and in a voice faintly resembling a caged lion roared "GEDSZZXQB." **How the mighty have fallen!!**

STOP PRESS.—The Woomera Radio Club, 5WC, appeared on the 3.5 Mc. band at 9 p.m. on the night of 5/10/53 and made their first QSO with that enterprising Amateur station 5TL (Tom)—those are his words, not mine. 5OB and 5JE were in command at Woomera. 5DA was a visitor at the shack of 5TL and was able to exchange greetings with 5JE, his old sparring partner who apparently is up there. There is no doubt about Ted, he gets around. Roy 5DA, incidentally, was passing through Renmark on his way to VK3.

Six stations appeared in the Northern Net on Sunday, 4/10/53 and that old "Northerner," 5UX, was later heard on 3.5 Mc. to 5HD, who was presumably on 6 mx. Possibly Les might get back to his old stamping ground if he reads this. Can you throw a boomerang yet "Uncle." Don't tell me that you are getting thinner, I am suffering from the same complaint!!

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## WESTERN AUSTRALIA

Firstly some reference to comments in last month's issue. The subject of the lecture given by 6HR on Poles and Holes was exactly as it was titled. 6HR when he erected a wooden mast to take a rotary beam, had two problems on hand: One, how he could get up to the top for additions, alterations, adjustments, etc., and how the structure would stand in a strong gale. He solved both questions in one, by digging a hole to drop the mast in so that the beam came within easy reach of the ground! Here's the how and why, and Lew tells me there are no patents covering the idea.

As the QTH is on the sandy plain not many miles from the coast, a 9 inch diameter hole was dug with a hand operated posthole digger, and it was lined for the first three or four feet with a few 9 inch oil drums with top and bottom removed (the type that provides the bottom of one to slip into the top of the next for stacking reasons). This stopped the sand on the surface breaking away. This was done after the mast was erected and stayed. An offset tabernacle was made and fitted with a drum and wire rope around a pulley at the base of the mast. By moving guys a little, the mast was manoeuvred over until it was over the hole, and 30 odd feet of pole disappeared into the ground. It has been lowered and raised many times, and still the hole remains a hole. The only remaining refinement is to attach the lowering mechanism to the barometer, and below safe reading things begin to operate, and "hey presto," the mast does the disappearing trick. The breezy description given by 6HR provided sad recollections for some members whose masts, towers, etc., have collapsed during a gale. Some were even thought to be designing a mechanism by which a 10 ft. square base tower could be lowered into a hole!

The other item from last month, the projected Bill through the local Parliament by the Perth City Council to levy a licence charge of 1/- per foot for masts attached to a building within their boundaries. Prompt action, both individual and Institute, and kindred bodies, have at least had the discussion postponed and looks as if it will be disallowed until redrafted to exclude Amateur masts at all events. In this, and perhaps on other occasions, an approach to members of Parliament that makes the laws, can achieve something that would be hopeless if we were satisfied to contact those that carry them out!!

VK6 have to advise a new member at last meeting, i.e. Mr. E. J. R. Cowles, of Box 26, Karlgarin, under call sign of VK6EJ.

The lecture for the next general meeting is to be given by 6NC, Neil Craigie, on Taxicar Radiophone Equipment, with demonstration if equipment is available.

Interest in the Institute Picnic is increasing, and a gesture this year is to invite all Hams who are not members of the W.I.A. to join in the day's enjoyment.

The census of opinion of VK6 members regarding the proposal to issue a certificate for "Worked All VK Call Areas" centres more on the suitability of the certificate rather than the proposal to provide one. Whilst it is realised that all W.I.A. certificates at present may be the result of hard work, and a fair expenditure of money, they still look very anaemic alongside those of other radio organisations. A heavier hand with the colour would improve them 100 per cent.

Council members are not generally in favor of proposed international Convention of Region III. during the Olympic Games in 1956. We may badly need our funds to conduct a Federal Convention before then, and as any decisions arrived at by members of Region III. would have to be submitted to respective controlling authorities, little could come of it. It is no more than we (and I suppose they) have to do following individual conventions or their equivalent meetings. A wide-awake Amateur delegate to the next World Convention to maintain our existence under the pressure of frequency grasping Governments would be money well spent. As at present, no Government representative can serve two masters, his Government, and the full case for the Amateur.

VK6 have a live-wire 144 Mc. group that could on occasion provide a city and suburban coverage. The dual transmission of the W.I.A. news on 40 and 80 mx is still a necessity to give middle distance members the news. Summer conditions have not yet indicated their appearance, and at 9.30 a.m. local time the skip on 40 mx reaches out to a distance of 150 miles to 200 miles. It is much more convenient to put it over once on several frequencies than to repeat the news on the one frequency several times during the day.

6RT, of Nungarin, has re-built (I suspect during the absence of the XYL). 6RS, 6WZ, 6BS, 6KJ, 6JG, 6RT, 6MO, 6BO (mostly country members, note) keep the 80 mx band alive. B.c.i., if the main rig is used, frightens some in the city unless special precautions, not needed on the higher frequencies, are incorporated.

It is not often that sympathies are extended in this column to other bodies, but we do to those of the Woomera Radio Club, who have to operate under their call sign!

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## TASMANIA

The deadline for this month's notes prevents the reporting of the October meeting, but I think I can predict what will happen as far as the lecture goes with a fair amount of accuracy. The lecture was given by Mr. J. Brown, 7BJ, on the subject of "Measurements in the Ham Shack," and in spite of much heckling by 7AL, proved to be most interesting and informative. Tom 7AL has been waiting for this chance ever since he lectured on the T2FD aerial at a recent meeting. On that occasion Joe enjoyed himself asking Tom awkward questions, such as "what about the power lost in the terminating resistor," and "what about the time you had to do the 7WI broadcast from my place and it was heard in the N.W. zone for the first time for months." Incidentally, the same thing happened on a recent Sunday when Tom was unable to do the broadcast, this time 7OM took over with his rig and again a signal was put into the N.W. zone. Coincidence or T2FD Tom? And while on the subject, Tom 7FM was heard making enquiries recently for some resistance wire for the terminating resistor on his T2FD—seems he likes the aerial very much, but burnt out the resistor —only 10w. input too!

Joe 7BJ seen recently at Bernidale flying a kite, secret aerial experiments Joe? Something to beat the T2FD no doubt.

The appeal for parts for the 7WI tx is in full swing now and at the time of writing, a number of parts have been received. If you can help in any way, the Exhibition Committee will be pleased to hear from you.

Paid a visit to 7KB at Burnie recently to find Ian in the throes of erecting a quick heading beam; the whole thing is mounted on a telegraph type pole and should be a good thing. Ken 7AI and Ellis 7WA have both got steel windmill towers ready to take three element beams, these towers are ideal for such things and there seems to be large quantities of them on various farms around the country which could probably be had quite cheaply. 7RY heard practicing for an announcer's job on the best broadcasting station in Hobart one morning recently. 7MY tells me he found his microphone, but has lost it again since, so still no activity; wot, no key jack Mac? 7RX heard working Europeans recently. I couldn't even hear a carrier Keith, must be the beam. Associate Jack Stevens having a few weeks in Melbourne studying up on some new v.h.f. equipment—basis for a lecture Jack?

### NORTHERN ZONE

Many of us last month had a visit to our shacks in the form of the R.I. Some have to make a few additions in the form of protection from accidental shock. We were quite surprised to find that the whole of our rack has to be enclosed. Those of us with under the table 1000v. supplies, no doubt, will have to do a little more than wear rubber soled brogues to use on our foot-warmers.

7PF is now back again in town from the N.W. coast. He was actually seen in a spare parts store (automotive). We hope that he will find time to rejoin the v.h.f. gang. Rex 7RB is busily bringing his Ham rig up to broadcast standards and a recent visit to his shack found him surrounded with audio oscillators and c.r.o's. In an adjoining room, Phil Crocker was putting the finishing touches to a small rig. As tipped in the last issue of these notes, 7RB's XYL has had to join in, and in another part of the household was playing with hi-fi audio equipment!

So far have not heard of 7BQ's results with his QQE06/40. A visit to one of our prosperous Hams found him winding coils on some nice new ceramic forms. Well Gordon, would not mind swopping my nylons for a set of them! As the days get warmer these Sunday mornings, have made a note to pay a visit to 7RK's shack.

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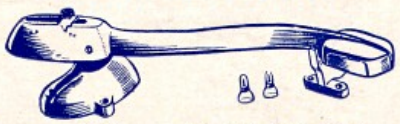

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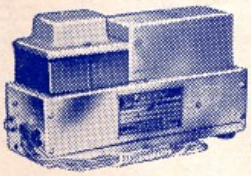

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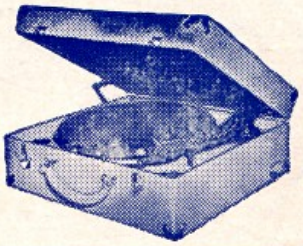

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